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Local Industrial Estate Market Demand Assessment: Methodology and Results for Nablus, Rafah, and Gaza

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TO THE

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Table of Contents

1. Introduction

This document describes and summarizes findings regarding local market demand for Local Industrial Estates (LIEs) that could be established within the municipal boundaries of Nablus, Rafah, and Gaza City. The purpose of these LIEs would be to serve the following sources of potential demand for industrial property:

1. Expansion of existing Palestinian businesses whose activities are currently constrained by a lack of suitable and affordable industrial property

2. Voluntary relocation of existing Palestinian businesses whose current facilities are not suitable for their business activities

3. Compulsory relocation of existing Palestinian businesses that are operating under temporary municipal licenses because their business activities are not compatible with zoning, land use, environmental, or other regulations

In order to assess potential demand in each of the three municipal areas, PRIZIM partner firm Massar Associates conducted demand surveys of potential users. Detailed descriptions of the survey methodology and results are attached as annexes to this document. The a detailed questionnaire regarding current and potential business activities was applied to establishments that could benefit from industrial property of the type envisioned for the LIEs. Under the Palestinian Central Bureau of Statistics classification system, this includes the following categories:

D. Manufacturing
G. Wholesale and retail, repair of motor
I. Transportation, storage, and communications
K. Real estate, renting, and business activity

This survey returned data on interest in relocating to an LIE under two scenarios, "current conditions" and "normal conditions," defined as conditions prevailing prior to the outbreak of the Al Aqsa Intifada.

The survey captured overall interest in relocating/establishing in the LIE in terms of "very interested", "interested", "neutral", "not interested" and "not at all interested." These responses form the basis of the analysis documented here. In addition, the survey generated data to be used in conjunction with engineering studies being carried out. This includes data in categories including:

- Characteristics of existing and desired facilities
- Proximity to clients and suppliers
- Current and "normal" capacity utilization
- Satisfaction with current services and facilities
- Rental rates and "willingness to pay" for facilities
- Appropriateness of the "proposed LIE" as described during the survey

2. Methodology and Assumptions

Response data gathered on overall interest in expanding/relocation to the proposed LIE was used to extrapolate potential interest within the survey population, and qualified through the application of a number of factors to model realization rates, absorption rates, growth rates, and development ratios under a "base case" scenario as well as under "optimistic" and "pessimistic" scenarios.

Standard real estate market analysis essentially examines composition and growth rates for target categories of industrial property, compares them with existing and projected capacity in the target area, and designs an industrial property "product" to capture some share of that potential opportunity. However, even with the detailed data obtained through the survey work, demand analysis for LIEs is quite different. Leaving aside the unique "current" versus "normal" demand scenarios, other important characteristics of the market under study include:

1. Focus on pent-up demand. The bulk of demand envisioned for the LIEs, especially in the near-term, relies not on economic growth but on relocation of facilities. In many cases, this relocation is driven not by business demand but by municipal planning/licensing conditions applied to enterprises. Predicting the behavior of "site seekers" in this environment is difficult.

2. Unclear competition. This pent-up demand is driven by several constraints on industrial property supply. These include, among others, a strong preference by small businesses to work in facilities which are owned rather than rented; past ability to operate informally, in non-industrial areas; lack of access to land due to Israeli restrictions; lack of private investment in industrial property; and poor economic performance. While the LIEs are perceived by some as unique projects that can capture the bulk of relocation and investment demand, they will in fact compete with other properties. For example, an urban property left vacant by a construction materials manufacturer could well be taken over by a retailer forced to vacate a residential area. Large-scale re-alignment of land use will not result in relocations to the LIE only. In addition, the GIE may capture some of the demand in Gaza City and perhaps even Rafah.

3. Lack of take-up data. Neither the West Bank nor the Gaza Strip has anything approaching a fluid property market. This lack of clear patterns of real estate uptake adds uncertainty to the demand projection process.

These issues are reflected in the following assumptions:

Realization Rates

The demand model translates survey results indicating an interest in LIE space into projected demand based on a series of factors. Under the base case scenario, it is assumed that 40 percent of respondents who indicated that they are "very interested" in investing in the LIE would actually do so, while only 25 percent of "interested" and 10 percent of "neutral" respondents are

assumed to commit to investing in the LIE. These factors are increased by 10 percent in the "optimistic scenario" and decreased by 10 percent in the "pessimistic scenario."

These factors are applied to responses (and extrapolated to the population) in both the "current conditions" and "normal conditions" scenarios, since the survey data includes separate data sets for each case. However, different factors are applied to firms that occupy their current premises on the basis of temporary operating licenses. It is assumed that 60 percent of these firms could be relocated under "current conditions," while 70 percent could be relocated under "normal conditions." Again, the "optimistic" and "pessimistic" scenarios vary this factor by 10 percent in either direction.

While these factors are quite high, they remain below 100 percent for several reasons. First, as pointed out above, some firms forced to relocate may still find suitable premises outside the proposed LIE. Second, some firms may modify their activities to comply with existing regulations and, as a result, obtain permanent licenses in their existing facilities. Third, it may be politically unfeasible to relocate all firms with temporary licenses, especially if some require facilities that are not available at the LIE. Fourth, some firms may opt to go out of business rather than be forcibly relocated.

Scenarios

The model assumes two types of scenarios: The "base case", "optimistic," and "pessimistic" scenarios are used to drive three sets of projections that can then be used to test the financial implications of variations in demand, once engineering costs are known. The "current conditions" and "normal conditions" scenarios are used to translate each set of projections into time series projections, based on assumed absorption factors.

Absorption Factors

The demand model includes assumptions about the rate at which "current condition" and "normal condition" demand can be absorbed by the LIE over time. The base case scenario assumes that once the LIE is operational it will take three years to absorb "current demand", that "normal conditions" will not occur until three years after LIE start-up, and that it will take five years to then absorb the added demand under "normal conditions." Under the optimistic scenario, "current" demand is also absorbed over three years, but "normal" conditions arise within two years, and "normal" demand is then absorbed within four years. Under the pessimistic scenario, "current" demand takes four years to absorb fully, "normal" conditions are not reached for five years, and "normal" demand is not absorbed for another six years.

Growth Rates

In addition to the absorption of "current" and "normal" demand, the model assumes that over-all economic growth rates also affect the investment stock in the LIE for any given year. Under current conditions, growth rates range from –2 percent (pessimistic) to –1 percent (base) and 0 percent (optimistic). Under normal conditions, growth rates range from 1 percent (pessimistic) to 2 percent (base) and 3 percent (optimistic).

Development Ratios

The proposed LIEs are designed to accommodate a large number of small users in cost-effective facilities. This type of development can accommodate higher densities than a border industrial estate aimed at larger investors. As a result, assumptions regarding development ratios and densities seek to maximize land yields. The net land yield (the ratio of raw land dedicated to facilities rather than shared areas such as roads and utilities) is assumed to be 75 percent. This number is realistic based on the smaller roads required by small-scale facilities. The floor area ration (the ratio of under-roof space to net land) is also assumed to be 75 percent.

The model then applies these assumptions to the unique data sets collected in each of the three surveys.

3. Results: Nablus

In Nablus, the survey covered a sample of 204 businesses, with significant clusters in the furniture and metal fabrication industries. Results from this sample were extrapolated to a population of 2,784 firms, of which only 14 percent currently operate under "conditional" operating licenses that must be renewed annually. This has important implications for the Nablus LIE – even though Nablus is a major economic center, an LIE could not count on a large number of firms with conditional operating licenses being relocated through the threat of non-renewal of those licenses. Success of the LIE will depend largely on the effective design, positioning, and marketing of a high-quality, cost-sensitive industrial property "product" to attract firms.

If the LIE can meet quality and cost expectations of the local market, the model projects demand for an LIE that provides almost 25 hectares of industrial space to tenants after five years, and almost 45 hectares over ten years. Based on the absorption and growth assumptions outlined above, the LIE would grow rapidly over the first eight years (to over 42 hectares), with growth then tapering off (reaching 52 hectares after 20 years). This would be equivalent to more than 290,000 square meters of under-roof space.

The pessimistic scenario projects a more modest growth pattern that reaches about 30 hectares over eleven years, and maintains that size over time, reaching about 33 hectares after 20 years. Under the optimistic scenario, the LIE reaches over 53 hectares within six years, and continues to grow to reach almost 75 hectares after 20 years

Detailed model results for the Nablus LIE are contained on the following two pages.

Nablus LIE Demand Summary

Characteristics

Population:	2,784	firms	of which	2,397	unconditional and	387	conditional	14%
Sample:	204	firms	of which	180	unconditional and	24	conditional	12%
Sample percent:	7%			8%		6%		

Assumptions

1. Realization rates

Current conditions:

	Unconditional demand			Conditional demand (all responses)		
		Case			*Case*	
Response	Pessimistic	Base	Optimistic	Pessimistic	Base	Optimistic
Very interested	30%	40%	50%	50%	60%	70%
Interested	15%	25%	35%			
Neutral	0%	10%	20%			

Normal conditions:

	Unconditional demand			Conditional demand (all responses)		
		Case			*Case*	
Response	Pessimistic	Base	Optimistic	Pessimistic	Base	Optimistic
Very interested	30%	40%	50%	60%	70%	80%
Interested	15%	25%	35%			
Neutral	0%	10%	20%			

2. Absorption

		Case	
Absorption (years)	Pessimistic	Base	Optimistic
Current demand	4	3	3
Normalization delay	5	3	2
Normal demand	6	5	4

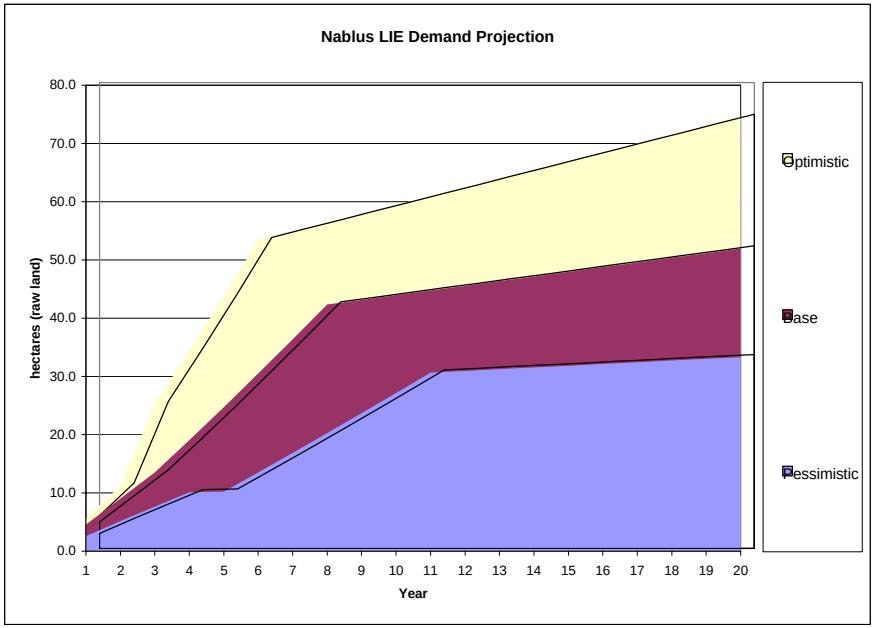
3. Growth

		Case	
Percent	Pessimistic	Base	Optimistic
Current conditions	-2.00%	-1.00%	0.00%
Normal conditions	1.00%	2.00%	3.00%

4. Development ratios

Net land yield:	75%
Floor area ratio:	75%

Results (summary)



Results (detailed)

1. Aggregated m2 under roof

Scenario	Pessimistic	*Case* Base	Optimistic
Current conditions	58,620	76,863	95,107
Normal conditions	167,309	225,379	283,449
Net normal added	108,689	148,516	188,343

2. m2 under roof	Year 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Pessimistic																				
0 Annual:	14,655	14,655	14,655	14,655	0	18,115	18,115	18,115	18,115	18,115	18,115	0	0	0	0	0	0	0	0	0
Cumulative	14,655	29,310	43,965	58,620	58,620	76,735	94,850	112,965	131,080	149,194	167,309	167,309	167,309	167,309	167,309	167,309	167,309	167,309	167,309	167,309
Growth:	0	-293	-586	-879	586	586	767	948	1,130	1,311	1,492	1,673	1,673	1,673	1,673	1,673	1,673	1,673	1,673	1,673
Total Cum.	14,655	29,017	43,086	56,862	57,448	76,149	95,031	114,094	133,339	152,764	172,371	174,044	175,717	177,390	179,064	180,737	182,410	184,083	185,756	187,429
Base																				
0 Annual:	25,621	25,621	25,621	29,703	29,703	29,703	29,703	29,703	0	0	0	0	0	0	0	0	0	0	0	0
Cumulative	25,621	51,242	76,863	106,567	136,270	165,973	195,676	225,379	225,379	225,379	225,379	225,379	225,379	225,379	225,379	225,379	225,379	225,379	225,379	225,379
Growth:	0	-256	-512	1,537	2,131	2,725	3,319	3,914	4,508	4,508	4,508	4,508	4,508	4,508	4,508	4,508	4,508	4,508	4,508	4,508
Total Cum.	25,621	50,986	76,095	107,335	139,170	171,598	204,621	238,238	242,745	247,253	251,760	256,268	260,776	265,283	269,791	274,298	278,806	283,314	287,821	292,329
Optimistic																				
0 Annual:	31,702	31,702	78,788	47,086	47,086	47,086	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cumulative	31,702	63,404	142,192	189,278	236,364	283,449	283,449	283,449	283,449	283,449	283,449	283,449	283,449	283,449	283,449	283,449	283,449	283,449	283,449	283,449
Growth:	0	0	0	4,266	5,678	7,091	8,503	8,503	8,503	8,503	8,503	8,503	8,503	8,503	8,503	8,503	8,503	8,503	8,503	8,503
Total Cum.	31,702	63,404	142,192	193,544	246,308	300,485	308,988	317,491	325,995	334,498	343,002	351,505	360,009	368,512	377,016	385,519	394,023	402,526	411,030	419,533

3. ha raw land																				
Pessimistic																				
Annual+:	2.6	2.6	2.5	2.4	0.1	3.3	3.4	3.4	3.4	3.5	3.5	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Total Cum.	2.6	5.2	7.7	10.1	10.2	13.5	16.9	20.3	23.7	27.2	30.6	30.9	31.2	31.5	31.8	32.1	32.4	32.7	33.0	33.3
Base																				
Annual+:	4.6	4.5	4.5	5.6	5.7	5.8	5.9	6.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Cumulative	4.6	9.1	13.5	19.1	24.7	30.5	36.4	42.4	43.2	44.0	44.8	45.6	46.4	47.2	48.0	48.8	49.6	50.4	51.2	52.0
Optimistic																				
Annual+:	5.6	5.6	14.0	9.1	9.4	9.6	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Cumulative	5.6	11.3	25.3	34.4	43.8	53.4	54.9	56.4	58.0	59.5	61.0	62.5	64.0	65.5	67.0	68.5	70.0	71.6	73.1	74.6

4. Results: Rafah

Of the three potential LIEs, Rafah has the smallest potential investor base. However, of the population of 548 firms, 31 percent operate under conditional licenses and could thus in theory be relocated. Demand figures in Rafah also include five larger firms (with an average size of over 2,100 square meters) that responded as "very interested", even under current conditions. As a result, the model's projections for Rafah are higher than originally anticipates.

If the firms with "conditional" licenses can be effectively mobilized, and the LIE can meet quality and price requirements of investors, the model projects demand for an LIE that provides 22 hectares of industrial space to tenants after five years, and over 30 hectares over ten years. Under the base case scenario, the LIE would grow steadily over three years (absorbing over 17 hectares), continue at a slower growth rate for another five years (to over 29 hectares), and then enter a slow growth phase for the remainder of the projected period, reaching 36 hectares after 20 years.

The pessimistic scenario projects a slower initial growth phase, to less than 14 hectares after 5 years, increasing gradually to over 22 hectares after eleven years. By year 20, this increases to just under 25 hectares. The optimistic scenario projects strong growth over the first three years (24 hectares) and subsequent three years (almost 36 hectares), with continuing growth to almost 50 hectares after 20 years.

Detailed model results for the Rafah LIE are contained on the following two pages.

Rafah LIE Demand Summary

Characteristics

Population:	548	firms	of which	380	unconditional and	168	conditional	31%
Sample:	92	firms	of which	65	unconditional and	27	conditional	29%
Sample percent:	17%			17%		16%		

Assumptions

1. Realization rates

Current conditions:

	Unconditional demand			Conditional demand (all responses)		
		Case			*Case*	
Response	Pessimistic	Base	Optimistic	Pessimistic	Base	Optimistic
Very interested	30%	40%	50%	50%	60%	70%
Interested	15%	25%	35%			
Neutral	0%	10%	20%			

Normal conditions:

	Unconditional demand			Conditional demand (all responses)		
		Case			*Case*	
Response	Pessimistic	Base	Optimistic	Pessimistic	Base	Optimistic
Very interested	30%	40%	50%	60%	70%	80%
Interested	15%	25%	35%			
Neutral	0%	10%	20%			

2. Absorption

		Case	
Absorption (years)	Pessimistic	Base	Optimistic
Current demand	4	3	3
Normalization delay	5	3	2
Normal demand	6	5	4

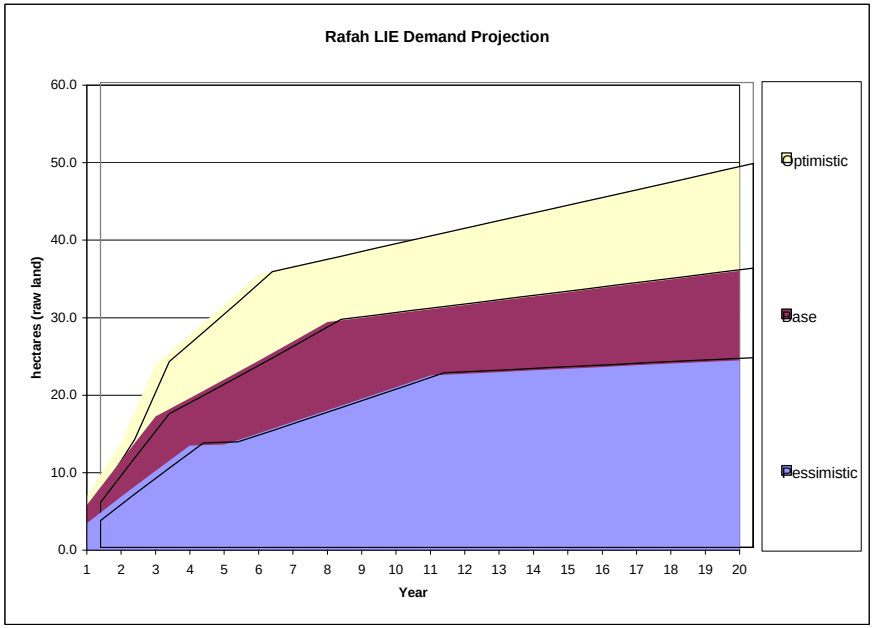
3. Growth

		Case	
Percent	Pessimistic	Base	Optimistic
Current conditions	-2.00%	-1.00%	0.00%
Normal conditions	1.00%	2.00%	3.00%

4. Development ratios

Net land yield:	75%
Floor area ratio:	75%

Results (summary)



Results (detailed)

1. Aggregated m2 under roof

Scenario	Pessimistic	*Case* Base	Optimistic
Current conditions	78,269	98,029	117,788
Normal conditions	122,550	154,568	186,587
Net normal added	44,281	56,540	68,798

2. m2 under roof		Year 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Pessimistic																					
0	Annual:	19,567	19,567	19,567	19,567	0	7,380	7,380	7,380	7,380	7,380	7,380	0	0	0	0	0	0	0	0	0
	Cumulative	19,567	39,134	58,701	78,269	78,269	85,649	93,029	100,409	107,789	115,170	122,550	122,550	122,550	122,550	122,550	122,550	122,550	122,550	122,550	122,550
	Growth:	0	-391	-783	-1,174	783	783	856	930	1,004	1,078	1,152	1,225	1,225	1,225	1,225	1,225	1,225	1,225	1,225	1,225
	Total Cum.	19,567	38,743	57,527	75,921	76,703	84,866	93,103	101,413	109,798	118,256	126,788	128,013	129,239	130,464	131,690	132,915	134,141	135,366	136,592	137,817
Base																					
0	Annual:	32,676	32,676	32,676	11,308	11,308	11,308	11,308	11,308	0	0	0	0	0	0	0	0	0	0	0	0
	Cumulative	32,676	65,352	98,029	109,336	120,644	131,952	143,260	154,568	154,568	154,568	154,568	154,568	154,568	154,568	154,568	154,568	154,568	154,568	154,568	154,568
	Growth:	0	-327	-654	1,961	2,187	2,413	2,639	2,865	3,091	3,091	3,091	3,091	3,091	3,091	3,091	3,091	3,091	3,091	3,091	3,091
	Total Cum.	32,676	65,026	97,048	110,317	123,811	137,532	151,479	165,652	168,744	171,835	174,927	178,018	181,109	184,201	187,292	190,383	193,475	196,566	199,657	202,749
Optimistic																					
0	Annual:	39,263	39,263	56,462	17,200	17,200	17,200	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cumulative	39,263	78,526	134,988	152,188	169,387	186,587	186,587	186,587	186,587	186,587	186,587	186,587	186,587	186,587	186,587	186,587	186,587	186,587	186,587	186,587
	Growth:	0	0	0	4,050	4,566	5,082	5,598	5,598	5,598	5,598	5,598	5,598	5,598	5,598	5,598	5,598	5,598	5,598	5,598	5,598
	Total Cum.	39,263	78,526	134,988	156,237	178,002	200,284	205,881	211,479	217,076	222,674	228,272	233,869	239,467	245,064	250,662	256,259	261,857	267,455	273,052	278,650

3. ha raw land																					
Pessimistic																					
	Annual+:	3.5	3.4	3.3	3.3	0.1	1.5	1.5	1.5	1.5	1.5	1.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	Total Cum.	3.5	6.9	10.2	13.5	13.6	15.1	16.6	18.0	19.5	21.0	22.5	22.8	23.0	23.2	23.4	23.6	23.8	24.1	24.3	24.5
Base																					
	Annual+:	5.8	5.8	5.7	2.4	2.4	2.4	2.5	2.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	Cumulative	5.8	11.6	17.3	19.6	22.0	24.5	26.9	29.4	30.0	30.5	31.1	31.6	32.2	32.7	33.3	33.8	34.4	34.9	35.5	36.0
Optimistic																					
	Annual+:	7.0	7.0	10.0	3.8	3.9	4.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	Cumulative	7.0	14.0	24.0	27.8	31.6	35.6	36.6	37.6	38.6	39.6	40.6	41.6	42.6	43.6	44.6	45.6	46.6	47.5	48.5	49.5

5. Results: Gaza City

The model shows strongest results for the Gaza City LIE. Gaza City has both a large population of 3,778 relevant firms and the largest proportion (47 percent) of firms operating on a conditional basis. The population shows significant clusters in the metal fabrication and wholesale trade industries. Interest in the LIE is strongly driven by an interest in expanding current activities (64 percent of respondents indicated this as a factor under current conditions, and 88 percent identified it as a factor under normal conditions).

As a result of these two factors, the model projects base case demand for an LIE that provides over 70 hectares of industrial space to tenants after five years, and over 85 hectares over ten years. The LIE quickly grows to over 62 hectares over three years, then increases more slowly to under 83 hectares over the subsequent five years, and finally reaches just over 100 hectares after 20 years.

Under the pessimistic scenario, the LIE still reaches just under 47 hectares after four years, and then enters a slower growth phase, to reach over 67 hectares after 20 years. Under optimistic assumptions, the Gaza City LIE rapidly develops 82 hectares over three years and then expands to over 140 hectares after 20 years.

These results are very strong, and point to the importance of managing the transition of "conditional" firms into the LIE. The results projected by the model assume that this transition can be managed effectively.

Detailed model results for the Nablus LIE are contained on the following two pages.

Gaza LIE Demand Summary

Characteristics

Population:	3,778	firms	of which	2,003	unconditional and	1,775	conditional	47%
Sample:	198	firms	of which	169	unconditional and	29	conditional	15%
Sample percent:	5%			8%		2%		

Assumptions

1. Realization rates

Current conditions:

	Unconditional demand			Conditional demand (all responses)		
		Case			*Case*	
Response	Pessimistic	Base	Optimistic	Pessimistic	Base	Optimistic
Very interested	30%	40%	50%	50%	60%	70%
Interested	15%	25%	35%			
Neutral	0%	10%	20%			

Normal conditions:

	Unconditional demand			Conditional demand (all responses)		
		Case			*Case*	
Response	Pessimistic	Base	Optimistic	Pessimistic	Base	Optimistic
Very interested	30%	40%	50%	60%	70%	80%
Interested	15%	25%	35%			
Neutral	0%	10%	20%			

2. Absorption

		Case	
Absorption (years)	Pessimistic	Base	Optimistic
Current demand	4	3	3
Normalization delay	5	3	2
Normal demand	6	5	4

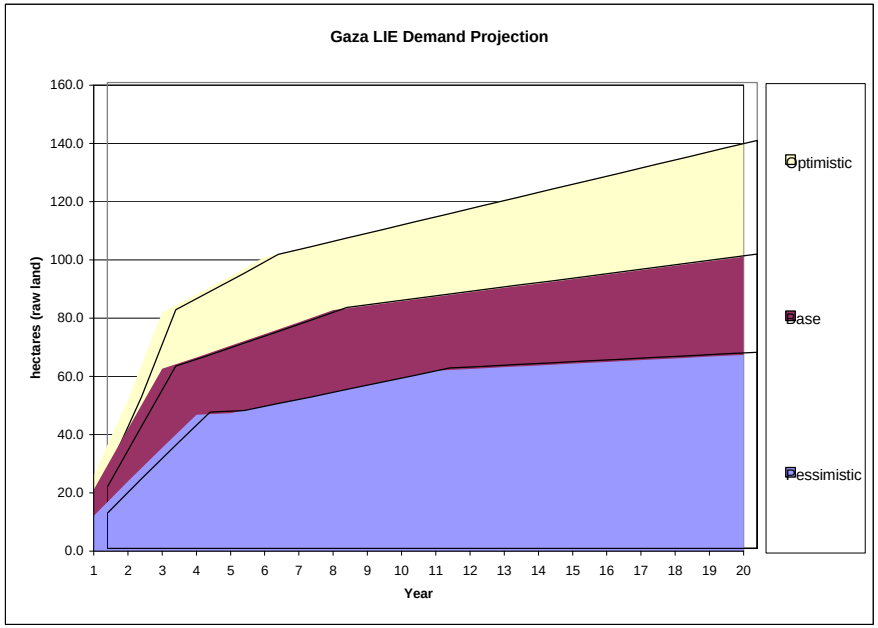
3. Growth

		Case	
Percent	Pessimistic	Base	Optimistic
Current conditions	-2.00%	-1.00%	0.00%
Normal conditions	1.00%	2.00%	3.00%

4. Development ratios

Net land yield:	75%
Floor area ratio:	75%

Results (summary)



Results (detailed)

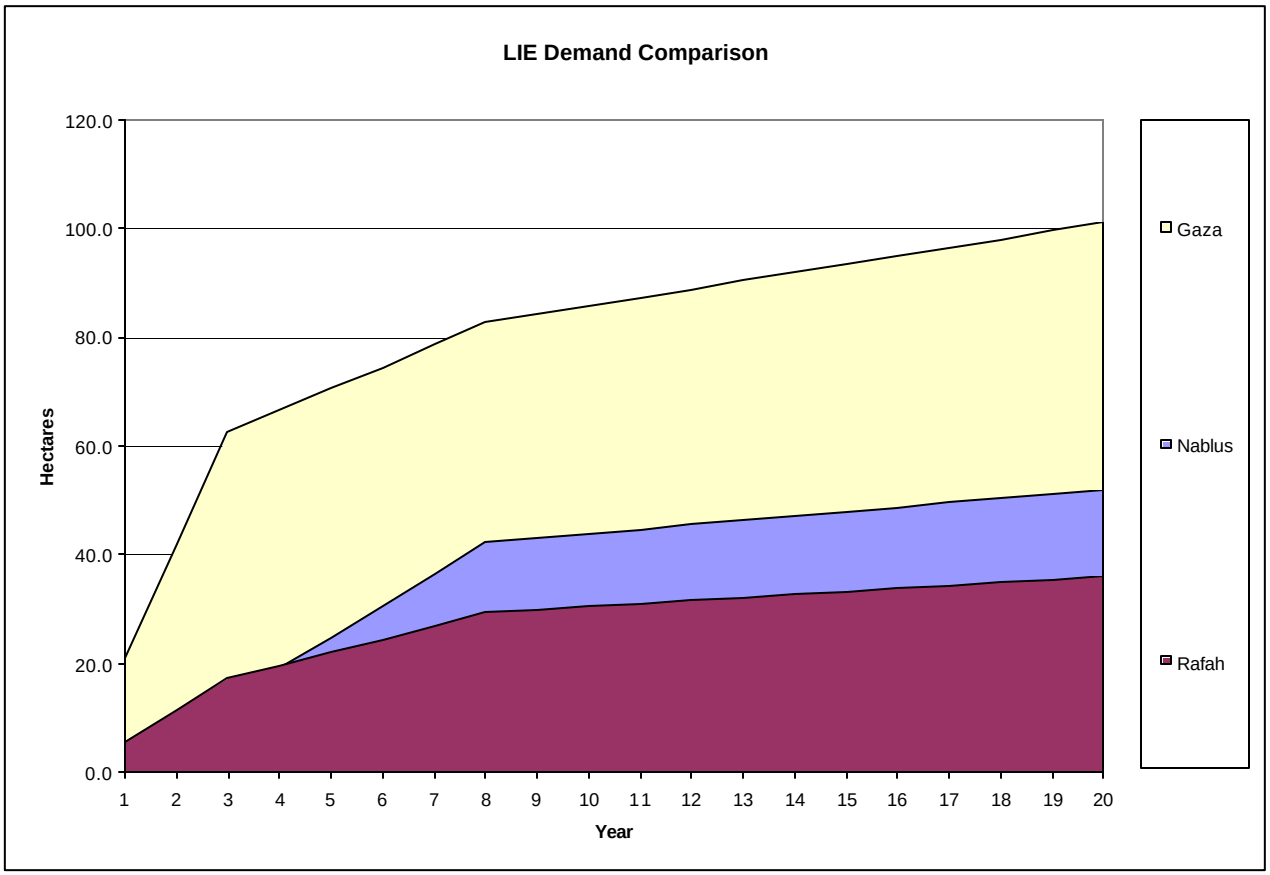
1. Aggregated m2 under roof

Scenario	Pessimistic	*Case* Base	Optimistic
Current conditions	271,690	355,800	439,910
Normal conditions	336,174	430,380	524,586
Net normal added	64,484	74,580	84,677

2. m2 under roof		Year 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Pessimistic																					
0	Annual:	67,923	67,923	67,923	67,923	0	10,747	10,747	10,747	10,747	10,747	10,747	0	0	0	0	0	0	0	0	0
	Cumulative	67,923	135,845	203,768	271,690	271,690	282,437	293,185	303,932	314,679	325,426	336,174	336,174	336,174	336,174	336,174	336,174	336,174	336,174	336,174	336,174
	Growth:	0	-1,358	-2,717	-4,075	2,717	2,717	2,824	2,932	3,039	3,147	3,254	3,362	3,362	3,362	3,362	3,362	3,362	3,362	3,362	3,362
	Total Cum.	67,923	134,487	199,692	263,539	266,256	279,720	293,292	306,971	320,758	334,652	348,653	352,015	355,377	358,739	362,100	365,462	368,824	372,186	375,547	378,909
Base																					
430,380	Annual:	118,600	118,600	118,600	14,916	14,916	14,916	14,916	14,916	0	0	0	0	0	0	0	0	0	0	0	0
	Cumulative	118,600	237,200	355,800	370,716	385,632	400,548	415,464	430,380	430,380	430,380	430,380	430,380	430,380	430,380	430,380	430,380	430,380	430,380	430,380	430,380
	Growth:	0	-1,186	-2,372	7,116	7,414	7,713	8,011	8,309	8,608	8,608	8,608	8,608	8,608	8,608	8,608	8,608	8,608	8,608	8,608	8,608
	Total Cum.	118,600	236,014	352,242	374,274	396,604	419,233	442,160	465,385	473,993	482,600	491,208	499,816	508,423	517,031	525,638	534,246	542,854	551,461	560,069	568,676
Optimistic																					
0	Annual:	146,637	146,637	167,806	21,169	21,169	21,169	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cumulative	146,637	293,273	461,079	482,248	503,417	524,586	524,586	524,586	524,586	524,586	524,586	524,586	524,586	524,586	524,586	524,586	524,586	524,586	524,586	524,586
	Growth:	0	0	0	13,832	14,467	15,103	15,738	15,738	15,738	15,738	15,738	15,738	15,738	15,738	15,738	15,738	15,738	15,738	15,738	15,738
	Total Cum.	146,637	293,273	461,079	496,080	531,717	567,989	583,726	599,464	615,201	630,939	646,677	662,414	678,152	693,889	709,627	725,364	741,102	756,840	772,577	788,315
3. ha raw land																					
Pessimistic																					
	Annual+:	12.1	11.8	11.6	11.4	0.5	2.4	2.4	2.4	2.5	2.5	2.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
	Total Cum.	12.1	23.9	35.5	46.9	47.3	49.7	52.1	54.6	57.0	59.5	62.0	62.6	63.2	63.8	64.4	65.0	65.6	66.2	66.8	67.4
Base																					
	Annual+:	21.1	20.9	20.7	3.9	4.0	4.0	4.1	4.1	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
	Cumulative	21.1	42.0	62.6	66.5	70.5	74.5	78.6	82.7	84.3	85.8	87.3	88.9	90.4	91.9	93.4	95.0	96.5	98.0	99.6	101.1
Optimistic																					
	Annual+:	26.1	26.1	29.8	6.2	6.3	6.4	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
	Cumulative	26.1	52.1	82.0	88.2	94.5	101.0	103.8	106.6	109.4	112.2	115.0	117.8	120.6	123.4	126.2	129.0	131.8	134.5	137.3	140.1

6. Next Steps

The base case results projected by the demand model for each of the three LIEs are summarized in the figure below:



Based on these results, both Nablus and Gaza seem to offer good potential for LIE development, since both demonstrate existing demand by an existing investor base. Of the two, Gaza offers significant additional potential based on a large number of potential relocations of "conditional" firms. Rafah also has the potential to generate enough activity for an LIE, though this demand depends heavily on "conditional" demand and on a small number of larger investors.

These demand projections represent only one side of the LIE feasibility work. Once clear engineering costs and design options are determined, a pro forma financial analysis will determine how demand, costs, project configuration, and rental rates combine to shape the overall feasibility of each of the proposed LIEs.

Annex A: Draft Market Demand: LIE in Nablus

Draft Report (2)

MARKETING DEMAND
LOCAL INDUSTRIAL ESTATE IN NABLUS

Submitted to:

PRIZIM Project and the Palestinian Industrial Estate & Free Zone Authority (PIEFZA)

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I. INTRODUCTION

The PRIZIM project is assisting PIEFZA in evaluating several potential Local Industrial Estates (LIEs). Three sites have been identified for detailed analysis, including one in the Nablus District. PRIZIM project support includes an initial evaluation of these potential LIEs to arrive at a project description, cost estimate, demand estimate, and pro forma financial performance calculation for each LIE. Massar Associates, PRIZIM's primary Palestinian partner firm, conducted market surveys for each of the three proposed locations: Gaza, Rafah and Nablus. This report describes the results of the Nablus survey.

Local Industrial Estate in Nablus

Industrial activities in Nablus consist primarily of small and micro-enterprises workshops. These are dispersed throughout the urban area, creating conflicts with residential land uses and generating, noise, air and water pollution and significant traffic congestion within the city center. The rapidly expanding population and economic development have led to an acute shortage of land within the municipal area, which is expressed in the high land costs in and around the city. Many industrial enterprises operate in urban locations on the basis of temporary permits. There thus appears to be demand for serviced industrial land and facilities to accommodate relocation and expansion of industry. For this reason, a Nablus Municipal Industrial Complex (NMIC) has been included in the Palestinian Development Plan (1998-2000).

Location

The proposed NMIC site (identified by the Municipality, and approved by the Higher Planning Counsel (HPC)) is located within area (B) under the Oslo Agreement. The proposed site is located outside the municipal boundary, approximately 3 km to the east of the city center, on Dair El-Hattab village lands. It is a flat area surrounded by streets on four sides. Primary access is provided by Rojeeb Street, which connects the Jordan Valley with Jerusalem.

Area and Development Plan

Nablus Municipality designated 444 donoms (44.4 hectares) for industrial development. The NMIC is planed on 123 donoms (12.3 hectares), out of which 36 donoms (3.6 hectares) is designated for four-story industrial buildings.

These proposed buildings vary from 3,300 m^2 to 1,100 m^2 in size. These buildings would house about 740 ground floor workshops and storage areas and 171 workshops and offices on upper floors. This would total 1,253 units.

This survey examines the demand for an LIE on the proposed site, for the general types of facilities anticipated by the NMIC. An assessment of the exact infrastructure configuration required to meet this demand is carried out by a separate engineering evaluation.

II. OBJECTIVES AND METHODOLOGY

The study has the following objectives:

1. Assess current operating environment in Nablus City, including satisfaction with existing services and infrastructure, areas available for industrial development, rental rates, capacity utilization, and other factors..
2. Estimates of market demand in Nablus under both the current political situation and under normal conditions, by sector and line of business.
3. Preferences of potential clients for LIE facilities, including area requirements and prices.
4. Development of a market demand estimate model

The survey was carried out through direct interviews with existing businesses in Nablus. A closed-ended questionnaire was administered to a random sample of businesses in industry, trade, and services. The questionnaire, sample size and distribution, questionnaire administration methodology, and preliminary results were discussed and coordinated with the PRIZIM team.

The survey population includes establishments located in Nablus that are engaged in activities that could potentially locate within a LIE. These include:

1 Manufacturing
2 Wholesale and retail activities, -motor repair, and crafts/ceramics
3 Transportation, storage, and communications
4 Real estate, rental/leasing activities, and other business activities.

In addition to these activities, the population includes all establishments that have received a conditional or temporary operating license. Establishments with such licenses operate under the condition that they will re-locate once suitable industrial property becomes available. A sample size of 189 establishments was selected, and a random selection of businesses was surveyed in Nablus-.

III. SURVEY RESULTS

1. Profile of Businesses

This section describes the characteristics of businesses interviewed. These include economic activities, ownership, proximity to the proposed LIE, capacity utilization, markets and suppliers, and other factors.

Sector and Type of Business

The following table shows percentage of respondents in each sector:

Table1: Nature of business

Description	Frequency	Percent
Industry and manufacturing	105	52
Trade	47	23
Service	52	26
Total	**204**	**100**

Fifty two percent of respondents are engaged in manufacturing activities. Less than one fourth (23 percent) of respondents is engaged in trade business and slightly over one fourth is engaged services. The following table describes the line of businesses interviewed.

Table2: Type of business

Description	*Frequency*	percent
P&M: soft drinks & food	4	2
P&M: garment	4	2
P&M: utensils	5	3
P&M: furniture	40	20
P&M: leather	1	1
P&M: metal products	15	7
P&M: Others	7	3
P&M: non metal products	1	1
P&M: construction material	1	1
Trade: wholesale	9	4
Trade: retail	25	12
Services: repairs personal	4	2
Services: repairs machinery	5	2
Services: car repair & maintenance	21	10
Services: real estate	3	2
Others	59	29
Total	**204**	**100**

Twenty percent of the survey's respondents engaged in the production and manufacturing (P&M) of furniture, a significant cluster in the local economy. In addition, metal workshops (work closely with blacksmith and aluminum) such as window frames, doorframes and other metal tools and equipment constitute a significant lines of production in Nablus area. The Trade: retail category consists largely of businesses that supply the manufacturing businesses with spare parts, accessories, and other inputs. Car repair and maintenance (10 percent of the sample) dominates the services category.

Ownership of Business and Facilities

The overwhelming majority of respondents (78percent) lease the businesses facilities. Less than one fourth own their facilities.

Table3: Title of Premises

Title	Frequency	percent
Rented	160	78
Owned	44	22
Total	**204**	**100**

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Registration

All survey respondents have registered businesses. Most (61 percent) are sole proprietorship. Twenty four percent of businesses are registered as private limited companies. Only 12 percent of businesses are partnerships.

Table4: Registration

Description	Frequency	percent
Private limited co	50	24
Private share holding co	4	2
Partnership	24	12
Sole proprietorship	125	61
Cooperative	1	1
Total	**204**	**100**

These results imply that all respondents have formally established businesses

Markets and Clients

Survey respondents were asked to identify their primary markets and the location of their clients/consumers. The marketplace and concentration of clients may have an impact on demand for the LIE and its facilities.

Table5: Primary Market

Description	Frequency	percent	Cumulative percent
West Bank	165	81	81
WB/Gaza	14	7	88
Israel	25	12	100
Total	**204**	**100**	

The primary market for most businesses (81percent) is the West Bank. The Israeli market is more important than the Gaza Strip, especially given the sever limitations of movements of goods and people in the last ten months.

It was also noted that slightly more than half of respondents whose primary market is within the West Bank sell within the borders of Nablus Governorate. In most cases, these transactions take place within the municipal boundary itself. Slightly less than half sell to other governorates in the West Bank, as summarized in Table6.

Table6: Location of clients

Description	Frequency	percent	Cumulative percent
Within the municipality	44	27	27
Within governorate	42	25	52
Within different governorates	79	48	100
Total	**165**	**100**	

In order to further understand the importance of the LIE's location to businesses in Nablus, respondents were asked to estimate the location of their main clients relative to their existing location. The following table illustrates the results:

Table7: Client location within Kilometer radius

Km Radius	Frequency	percent	Cumulative percent
1	3	2	2
3	20	10	12
5	18	9	21
10	29	14	35
More than 10	134	65	100
Total	**204**	**100**	

The results clearly show that approximately two thirds (65percent) of the respondents have a client base that is located more than 10 kilometers from their existing location. This finding has important implications for the respondents' willingness to move to the LIE.

While the overwhelming majority of clients (81percent) of businesses interviewed are in the West Bank market, only 56 percent of suppliers are located in the West Bank:

Table8: Main Suppliers

Description	Frequency	Percent	Cumulative percent
West Bank	115	56	56
WB/Gaza	9	5	61
Israel	59	29	90
International	21	10	100
Total	**204**	**100**	

Of the 115 (56 percent) respondents whose suppliers are located in the West Bank, 61 percent have suppliers within the municipal border. Another 21 percent have suppliers within the Nablus governorate borders. The remainder (24 percent) have suppliers in other governorates is indicated in the following table:

Table9: Location of main suppliers

Description	Frequency	Percent	Cumulative percent
Within the municipality	70	61	61
Within governorate	21	18	79
Within different governorate	24	21	100
Total	**115**	**100**	

Respondents were again asked to estimate the distance of their main suppliers. The results of these estimates are described below:

Table10: Suppliers' location within kilometer radius

Kilometer radius	Frequency	Percent	Cumulative percent
1	13	6	6
3	22	11	17
5	18	9	26
10	30	15	41
More than 10	121	59	100
Total	**204**	**100**	

Fifty nine percent of all respondents have suppliers located beyond a 10-kilometer radius from their existing location. Slightly more than one-fourth of suppliers are located within a five-kilometer radius.

Size/Area of Current Facilities

The limited size of current facilities used by respondent businesses is a major factor for business growth and expansion. The following table describes current facilities areas in square meters used by interviewed businesses:

Table11: Size of current facility in m2

Description	Frequency	Percent	Cumulative percent	Mean	Std. Error of Pop. Mean
0-150	144	71	71	57 m^2	3
151-300	18	9	80	235 m^2	13
301-450	5	2	82	388 m^2	12
451-600	10	5	87	545 m^2	18
601-750	7	3	90	709 m^2	10
>751	20	10	100	1,936 m^2	306
Total	**204**	**100**		**311**	**49**

The overwhelming majority (71 percent) of businesses have a small existing area for operations, with a mean area of 57 m^2. Nine percent of respondents use an average area of 235 m^2. Some 10 percent of respondents use medium to large areas, with an average of 1,936 m^2.

Number of Employees

The results of the survey reveal that most businesses (84 percent) interviewed are small businesses that employ eight workers or fewer. Fifty six percent employ fewer than five workers, and 16 percent employs more than eight workers, as shown in the following table:

Table12: Number of employees

No.	Frequency	Percent	Cumulative percent
0-4	115	56	56
5-8	57	28	84
>8	32	16	100
Total	**204**	**100**	

Capacity Utilization

The current political situation has severely affected economic activities in the West Bank and Gaza. Many business operations were forced to either shut down or reduce operations. Very few businesses were able to maintain their previous scale of operations. The following two tables provide insights about the situation during June and July of 2001 (during the Al Aqsa Intifada) and prior to September 2000 (prior to the Intifada).

Table13: Currently utilized operating capacity (June-July 2001)

percent of Utilization	Frequency	Percent	Cumulative percent	Mean percent	Std. Error of Mean
0-25	118	58	58	12	1
26-50	51	25	83	38	1
51-75	29	14	97	59	1
76-100	6	3	100	93	3
Total	**204**	**100**		**28**	**2**

Table14: Utilized operating capacity prior to the Intifada (September 2000)

percent of Utilization	Frequency	percent	Cumulative percent	Mean percent	Std. Error of Mean
0-25	3	2	2	18	4
26-50	26	12	14	45	1
51-75	71	35	49	66	1
76-100	104	51	100	89	1
Total	**204**	**100**		**74**	**1**

These results clearly demonstrate the severe deterioration of business activities during the Intifada. Today, 83 percent of businesses utilize less than 50 percent of their capacity, with an average of 38 percent (compared to only 14 percent of businesses prior to Intifada). While only three percent of businesses utilize more than 75 percent of their capacity these days, 51 percent of these businesses utilized more than 75 percent of their capacity prior to the Intifada.

These results indicate that the demand by existing enterprises for expanded premises under current conditions is small, since only three percent of enterprises are operating at more than 75 percent of capacity. Under current conditions, any demand for LIE facilities would most likely come from the relocation rather than the expansion of existing enterprises. Under pre-Intifada conditions, expansion demand by at least some of the 51 percent of enterprises operating at above 75 percent capacity would be added to this demand.

Distance from the LIE

In order to find out if the distance between current locations of respondents and the proposed location of the LIE is a locating factor, interviewees were asked to estimate the traveling time and distance to the new LIE. The results were as follows:

Table15: Distance to LIE in minutes

Minutes	Frequency	Percent	Cumulative percent	Mean in minutes	Std. Error of Mean
0-3	2	1	1	2	<1
4-6	31	15	16	5	<1
7-9	55	27	43	7	<1
10-12	44	22	65	10	<1
> 12	72	35	100	16	<1
Total	**204**	**100**		**10**	**<1**

Travel time to the proposed LIE is relatively small for the majority of businesses interviewed. While even small distances can have major impacts for commercial operations that require ready access to the central business district, the survey found earlier that most enterprises surveyed already are located more than 10 kilometers from their customers and suppliers. Approximately two-thirds of respondents estimate the required time to travel to the LIE to be less than 12 minutes, with an average of 10 minutes. The remaining businesses (35 percent) estimate an average of 16 minutes traveling time to the LIE.

The distance in kilometers between current and new LIE locations is also small, as described in the following table:

Table16: Distance to LIE in Kilometers

Km	Frequency	Percent	Cumulative percent	Mean km	Std. Error of Mean
0-5	65	33	33	3	<1
6-10	97	50	83	8	<1
11-15	31	16	99	13	<1
16-20	1	1	100	18	<1
Total	**194**	**100**		**7.04**	**<1**

Eighty three percent of respondents are located within ten kilometers of the proposed LIE site. Almost all other respondents are located within a 15-kilometer radius. Only one respondent stated a distance between 16 and 20 kilometers. The overall mean distance is about seven kilometers.

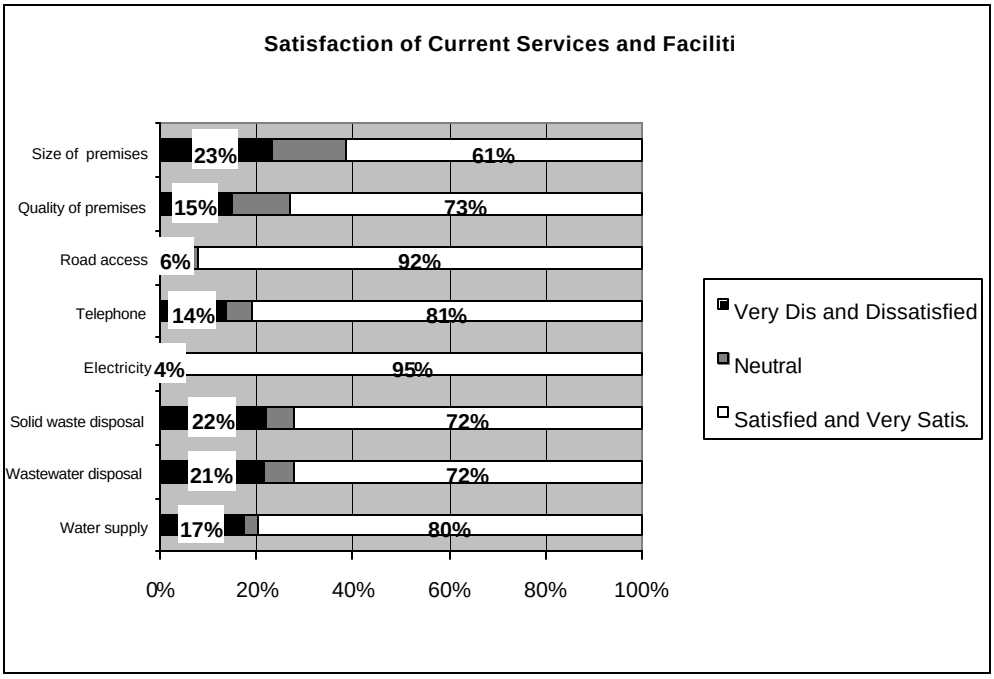
2. Assessment of Current Services and Facilities

Satisfaction with current services and facilities is a major location determinant. Respondents were asked to rate their level of satisfaction according to the following scale:

1 Very dissatisfied
2 Dissatisfied
3 Neither/Nor satisfied
4 Satisfied
5 Very Satisfied

The results are summarized in the following figure

Figure 1: Satisfaction with the current services



Surprisingly, the majority of respondents are satisfied with most current infrastructure and services. Satisfaction with electricity (95 percent) and road access (92 percent) in particular is very high. However, a significant proportion of respondents are dissatisfied or very dissatisfied with the size of premises (23 percent), solid waste (22 percent) and wastewater disposal (21percent).

The following table provides quantitative scores for each service under evaluation. As shown in the table, most services are scored above the average of three (a score of five “5” means “very satisfied” while a score of one “1” means “very dissatisfied”).

Table17: Satisfaction with the current services

Services	Mean	Std. Error of Mean
Water supply	3.87	0.1
Wastewater disposal	3.76	0.1
Solid waste disposal	3.67	0.1
Electricity	4.25	0.1
Telephone	3.94	0.1
Road access	4.18	0.1
Quality of premises	3.8	0.1
Size of premises	3.49	0.1

Although there is a substantial degree of satisfaction with most factors under consideration, satisfaction with the size and quality of premises ranks lower than the satisfaction with other service levels. The proposed LIE could offer these enterprises superior facilities. Second, the researcher believes that many of those who showed satisfaction built their opinion based on comparisons between the quality of such services in 1996 and 2001 where significant improvements have been made.

3. Current Rent Rates and Willingness to Pay (Amount of Rent)

Rent Rates of Rented Facilities

The cost of rent in the new LIE would be an important factor in the decision to expand or relocate to the proposed LIE. Respondents were asked to state the rent expense per m^2 per year of their rented facilities. The following table depicts rent cost per m^2 per year as stated by respondents:

Table18: Rent rates of rented facilities per year per m^2 in USD

Rent $/Year/$m^2$	Frequency	Percent	Cumulative percent	Mean $/Year/$m^2$	Std. Error of Mean $
0- 7	32	20	20	4	0
7.1-14	30	19	39	11	0
14.1-21	16	10	49	18	1
21.1-28	21	13	62	25	1
28.1-35	14	9	71	33	1
35.1-42	11	7	78	40	1
42.1-49	9	6	84	47	1
49.1-56	12	8	92	55	1
56.1-63	7	4	96	59	1
>63	7	4	100	115	13
Total	**159**	**100**		**28**	**2**

This broad variation of rental rates can be explained by several reasons. First, some businesses benefit from old, rent-controlled contracts that are locked into below-market rates. Second, the rental rates are a function of location, and vary widely depending on the kind of facility. The overall average is about $28 per m^2 per year, as outlined above. There are five extreme cases of businesses that pay rental rates in excess of $85 per m^2 due to their location near the fruits and vegetable market in Nablus. These cases appear as outliers with the mean in the shaded area in the following graph:

However, in order to verify these results and to obtain approximate figures about current market rental rates, Massar conducted several interviews with real estate mediators in Nablus. The following table summarizes the results:

Table19: Current market rental rates

Location	Rent per m^2
Prime commercial center and grocery market	120-$150
Commercial centers	55-$65
Storage, manufacturing and services areas	40-$45

These figures reflect current market rental rates within the borders of Nablus municipality. Storage, manufacturing and services rental rates are similar to almost 13 percent of businesses whose rental rates are described in table 18. For the proposed LIE, rental rates of this category (storage and manufacturing might be used as the basis for pricing strategies in the future

Rent of Similar Premises to those Owned by Respondents

Respondents who own their facilities were asked to estimate the current market rent of similar facilities. Forty-one respondents provided answers, which are summarized in the following table:

Table20: Rent of similar premises per year per m^2 in USD

Rent	Frequency	Percent	Cumulative percent	Mean	Std. Error of Mean
0- 7	8	19	20	4	1
7-14	8	20	39	12	1
14-21	8	20	59	19	1
21-28	3	7	66	26	1
>28	14	34	100	46	5
Total	**41**	**100**		**25**	**3**

Bearing in mind that the respondents in this case were referring to already established rental contracts and not today's' rental market rate. The results indicate that owners' estimation for rent is somewhat close to rent mentioned by those who rent their premises. Fifty nine percent stated that the rent for similar premises would be a round $21 or less, compared to 49 percent of respondents renting facilities as explained in the previous table. However, the rent mean of all categories is $25 closed to the rent mean $28 mentioned earlier.

In order to get an overall picture of rent rates, the two previous tables were combined. Results are indicated in the following table:

Table21: Rent rates of and estimated rates of similar premises per year per m^2 in USD

Rent	Frequency	Percent	Cumulative percent	Mean	Std. Error of Mean $
0- 7	40	20	20	4	0
7-14	38	19	39	11	0
14-21	24	12	51	19	0
21-28	24	12	63	25	0
>28	74	37	100	52	3
Total	**200**	**100**		**28**	**2**

The results do not deviate significantly from any of the previous results. Around 50 percent pay less than $21 per m^2 per year, with an average of $28 for all respondents.

Rent Rates for the LIE as Stated by Respondents

Respondents were asked to indicate the amount they would be willing to pay for each m^2 in the new LIE. Responses are summarized in the following table:

Table22: Maximum rent year per m^2 in USD

Rent	Frequency	Percent	Cumulative percent	Mean	Std. Error of Mean $
0- 7	59	34	34	4	0
7-14	62	36	70	13	0
14-21	18	11	81	20	0
21-28	18	11	92	28	0
>28	14	8	100	42	2
Total	**171**	**100**		**14**	**1**

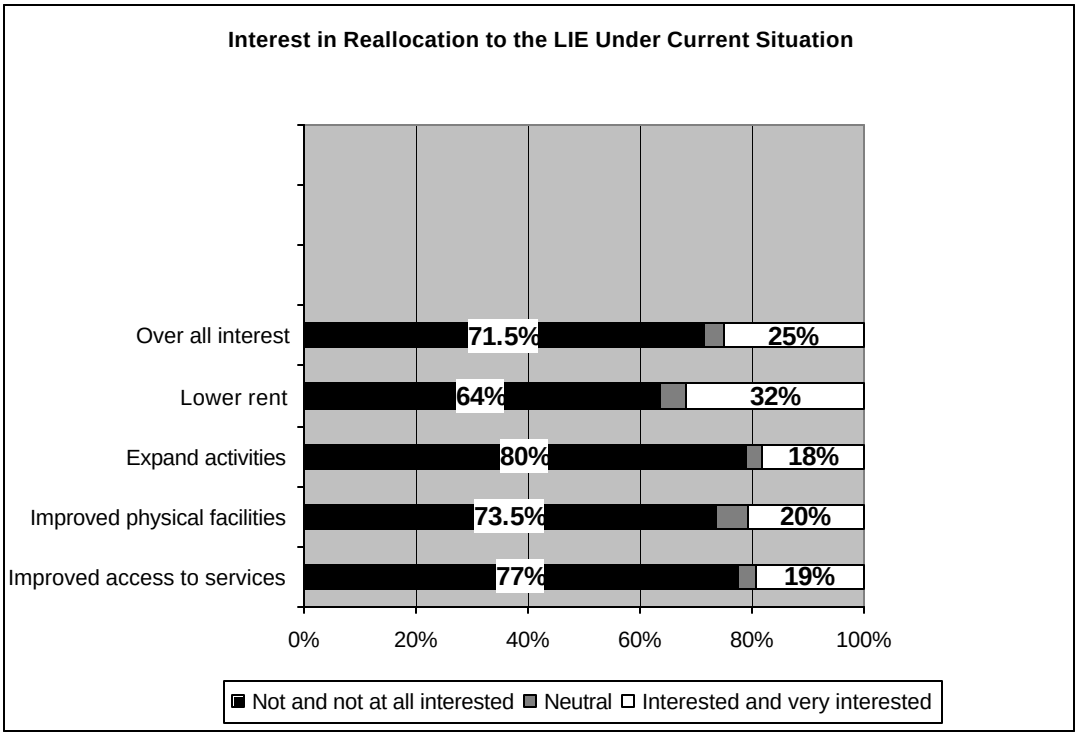
The results indicate that the majority of respondents (70 percent) lie in the two lowest categories compared to 59 percent of respondents who are supposedly pay the same rent as appear in the previous Table21. Around one third (34 percent) propose a rent price of less than seven US dollars per m^2 per year. Slightly more than one third (36 percent) suggest seven (7) to 14 US dollars per m^2 per year. Only eight percent are willing to pay above $28 per m^2 per year compared to 37 percent of respondents who stated that they currently pay above $28.

4. Demand for Local Industrial Estate (Current Situation)

As discussed earlier, most businesses are currently suffering from restrictions and closures imposed by Israel, which impede potential growth and expansion. Under these conditions, one would not expect businesses to move and invest in new locations to expand existing operations. Relocation of existing capacity would seem to be the most likely scenario for any location of businesses in the LIE. In order to verify these arguments, respondents were asked to express their interest to relocate to the new proposed LIE in Nablus area according to the following scale:

1. Not interested at all
2. Not interested
3. Neither interested nor not interested
4. Interested
5. Very interested

Figure: Interest in relocation to the LIE under current conditions



One-fourth of all respondents showed an over-all interest in relocating to the LIE. Thirty two percent showed a particular interest in relocating to lower-cost facilities, with other factors (such as quality of facilities and services) ranking somewhat lower in importance (20 and 19 percent, respectively). Surprisingly, 18 percent of respondents did express an interest in expanding rather than just relocating their existing facilities.

The following table shows the mean score of interest to relocate with a maximum of five "5" and minimum of one "1". All answers as shown in Table23 are below the average of three '3", indicating a moderate interest in relocating to the proposed LIE.

Table23: Mean score of interest in relocation to the LIE under current conditions

Item	Mean	Std. Error of Mean
Improved access to services	2.21	0.1
Improved physical facilities	2.25	0.1
Expand activities	2.07	0.1
Lower rent	2.5	0.1
Over all interest	**2.26**	**0.1**

Those who expressed interest to relocate to the proposed LIE in Nablus were asked to estimate the required area of facilities in the new LIE. The results are shown in the following table:

Table24: Required area of facilities

Area	Frequency	Percent	Cumulative percent	Area/Mean	Std. Error of Mean
0-100	17	42	42	88	45
101-200	8	20	62	151	14
201-300	3	7	69	300	0
301-400	1	2	71	350	0
401-500	3	7	78	500	439
>600	9	22	100	1575	133
Total	**41**	**100**			

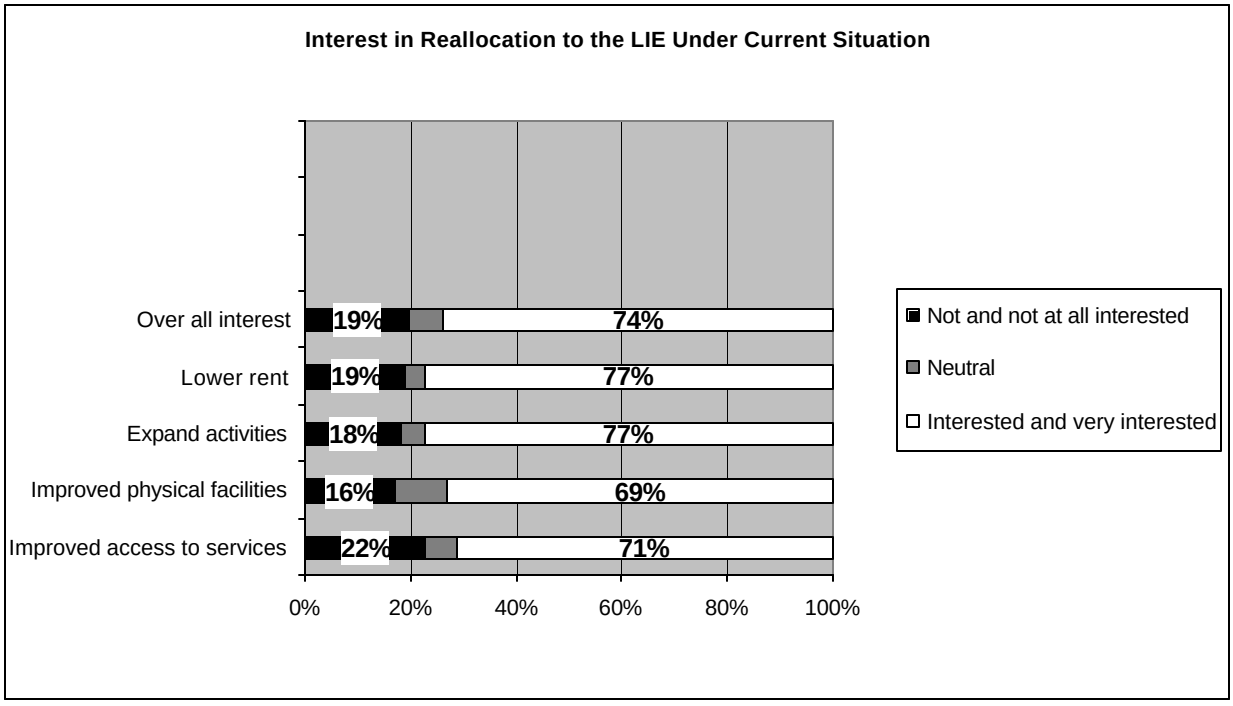
The largest segment of respondents (42 percent) would require an area of 100m^2 or less, with a mean of 88 m^2. The second largest group of businesses stated that they require at least 600 m^2, with an average of 1,575 m^2. Roughly two thirds of businesses would require an area below 200m^2. Seven extreme outlier cases were reported asking for 2,600, 3,000, 4,000, 5,000 and 6,000 m^2.

5. Demand for Local Industrial Estate (Normal Situation)

Respondents were also asked about their interest to relocate if the political situation returns back to normal – that is, pre-Intifada conditions. Such a scenario would increase interest in expanded facilities and improved infrastructure. Respondents were asked to rate their interest based on the following scale:

1. Not interested at all
2. Not interested
3. Neither/Nor interested
4. Interested
5. Very interested

Figure: Interest in relocating to the LIE under current conditions



Unlike results under the current scenario, responses under the "pre-Intifada" assumption are much more positive. Roughly three-quarters of respondents are interested or very interested in relocating to the new LIE. Within this category, there is an almost equal distribution between the "interested" and "very interested" respondents. Lower rent is still the most important driving factor. Other factors for relocation are almost equally distributed.

These results imply that there will be a significant increase in demand for the new LIE once the political situation stabilizes.

As shown in the following table, the degree of interest for the new LIE under normal conditions scenario is above the average ranking of three "3".

Table25: Relocating interest to LIE under normal situation for various factors

Reason	Mean	Std. Error of Mean
Improved access to services	3.79	0.1
Improved physical facilities	3.79	0.1
Expand activities	3.97	0.1
Lower rent	4.01	0.1
Over all interest	**3.97**	**0.1**

Table26: Required size of facility in LIE in m^2 in normal conditions

Size/M2	Frequency	Percent	Cumulative percent	Mean	Std. Error of Mean
0-100	60	37	37	84	3
101-200	41	26	63	167	5
201-300	12	8	71	296	4
301-400	6	4	75	383	11
401-500	11	6	81	500	0
501-600	3	2	83	583	17
>600	27	17	100	2041	423
Total	**160**	**100**		**500**	**90**

6. Demand and Relations with Other Variables

This section examines the relationship between demand for LIE facilities under current and normalized conditions and other variables such as nature of business, size of facility, operating capacity utilized, ownership, and others.

Over-all Interest in Relocating to LIE and Nature of Businesses

a. Current situation
The Pearson Chi-Square test shows no significant value to reject the independency between overall interest and the sector of business. Therefore, the statistical results show that there is no relationship between the nature of the business and its willingness to relocate to the LIE under current political situation.

b. Normal situation
The Pearson Chi-Square test shows no significant value to reject the independency between the nature of the business and willingness to relocate. Therefore, the statistical results show that there is no relationship between the nature of the business and its willingness to relocate to the LIE under a normalized political and economic situation.

Over all Interest in Relocating to LIE and Size of Current Facilities

a. Current situation
The cross tabulation results indicate that there is no significant relationship between demand for LIE and current size of business facilities under Intifada conditions. Pearson Chi-Square test shows no significant value to reject the independency between the size of current facility and demand to relocate.

b. Normal situation
Chi-Square test significant value indicates that there is no relationship between the size of business and interest to relocate to the Lie under normal situation.

Over all Interest in Relocating to LIE and Number of Employees

a. Current situation
The cross tabulation results indicate that there is no significant relationship between demand for LIE and number of employees under Intifada conditions. Pearson Chi-Square test shows no significant value to reject the independency between interest to relocate and number of employees in the business.

b. Normal situation
Chi-Square test significant value indicates that there is no relationship between the number of employees and interest to relocate to the LIE under normal situation.

Over all Interest in Relocating to LIE and Today's and Prior to Intifada Capacity Utilization

a. Current Situation
The results show that Chi-Square Test significant value (2 sided) equals 0.182, indicating weak relationship between interest to relocate and prior to intifada capacity utilization.

b. Normal Situation
The results show that Chi-Square Test significant value (2 sided) equals 0.184, indicating weak relationship between interest to relocate and prior to intifada capacity utilization.

Over all Interest in Relocating to LIE and Title of Premises

a. Current Situation
Chi-Square Tests significant value (2 sided) equals 0.14, meaning that there is no association between title of business and interest to relocate under current conditions.

b. Normal Situation
Chi-Square Tests significant value (2 sided equals 0.02) suggests that there is a strong relationship between interest to relocate to the LIE and the title of business. The tendency to move to the LIE is higher when the business facility is rented as appears in the table below.
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Table27: Interest to relocate and title of business

Over all interest		**Title of Premises**		**Total**
		Rented	**Owned**	
Not interested	No.	25	15	40
	percent	15.6percent	34.1percent	19.6percent
Neutral	No.	10	3	13
	percent	6.3percent	6.8percent	6.4percent
Interested	No.	125	26	151
	percent	78percent	59percent	74percent
Total	**No.**	160	44	204
	percent	100percent	100percent	100percent

Over all Interest in Relocating to LIE and Current Rent Rates

a. Current Situation
Pearson Chi-Square test shows no significant value to reject the independency between rent rates and interest to relocate under current political conditions.

b. Normal Situation

Chi-Square Test reveals significant value (2 sided) equals 0.01, signaling a strong relationship between rent rates and interest to relocate to the LIE under normal conditions.

Table28: Interest to relocate to the LIE under normal conditions and rent rates

Over all interest		Rent per year per m2 in USD										Total
		0-7	**7.1-14**	**14.1-21**	**21.1-28**	**28.1-35**	**35.1-42**	**42.1-49**	**49.1-56**	**56.1-63**	**>63**	
Not interested	No.	12	2		4	3	2		1	1		25
	percent	37.5	6.7		19	21.4	18.2		8.3	14.3		15.7percent
Neutral	No.	1		1	3		2	2			1	10
	percent	3.1		6.3	14.3		18.2	22.2			14.3	6.3
Interested	No.	19	28	15	14	11	7	7	11	6	6	124
	percent	59.4	93.3	93.8	66.7	78.6	63.6	77.8	91.7	85.7	85.7	78.0
Total	**No.**	**32**	**30**	**16**	**21**	**14**	**11**	**9**	**12**	**7**	**7**	**159**
	percent	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

The tendency among respondents to relocate to the new LIE is higher when the current rent rates paid is higher vice versa. This data also needs to be discussed elsewhere!

7. Appropriateness of the Proposed LIE

Field surveyors briefly described the LIE location in Nablus area to respondents. Respondents were then asked to state their opinion on whether is the proposed LIE is appropriate for them or not on the following scale:

1. Not appropriate at all
2. Not appropriate
3. Neutral
4. Appropriate
5. Very appropriate

The following results were obtained:

Table29: Appropriateness of LIE location

Answer	Frequency	percent	Cumulative percent
Not appropriate at all	6	3	3
Not appropriate	35	17	20
Neutral	28	14	34
Appropriate	48	23	57
Very appropriate	87	43	100
Total	**204**	**100**	

Two-thirds of respondents indicated that the proposed LIE is appropriate for their activities. Forty three (43) percent judged the proposed LIE “very appropriate”. Only 20 percent rate the proposed LIE as “not appropriate” or “not appropriate at all”... In general the results indicate acceptability (mean of 3.68 out of 5) of the new location for the majority of businesses.

Annex B: Draft Market Demand: LIE in Rafah

Draft Report (2)

MARKETING DEMAND
LOCAL INDUSTRIAL ESTATE IN RAFAH

Submitted to:

PRIZIM Project and the Palestinian Industrial Estate & Free Zone Authority (PIEFZA)

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July 2001

I. Introduction

The PRIZIM project is assisting PIEFZA in evaluating several potential Local Industrial Estates (LIEs). Three sites have been identified for detailed analysis, including one in the Rafah District. PRIZIM project support includes an initial evaluation of these potential LIEs to arrive at a project description, cost estimate, demand estimate, and pro forma financial performance calculation for each LIE. Massar Associates, PRIZIM's primary Palestinian partner firm, conducted market surveys for each of the three proposed locations: Gaza, Rafah and Nablus. This report provides results of the Rafah market analysis survey.

Local Industrial Estate in Rafah

Industrial activities in Rafah consist primarily of small and micro-enterprises workshops. These are dispersed throughout the urban area, creating conflicts with residential land uses and generating, noise, air and water pollution and significant traffic congestion within the city center. The rapidly expanding population and economic development have led to an acute shortage of land within the municipal area, which is expressed in the high land costs in and around the city. Many industrial enterprises operate in urban locations on the basis of temporary permits. There thus appears to be demand for serviced industrial land and facilities to accommodate relocation and expansion of industry.

Location

The proposed site for the development of Rafah Industrial Estate is located within a small village called Shawkeh to the east of Rafah city, on the east boarder of Gaza Strip. The location is about five kilometer away of the Egyptian boarder and only1.5 kilometer from Gaza International Airport.

Area and Development Plan

The total area is 6,500 donums (650 hectares). Out of this total area, 2,700 donums (270 hectare) classified as an Industrial zone. However, due to the political conditions, PIEFZA had taken a practical decision to start with only 100 donums (10) hectares of the total proposed land to foster the establishment of Rafah Industrial Estate keeping the implementation of the original plan for later stages.

This survey examines the demand for an LIE on the proposed site, for the general types of facilities anticipated by the PIEFZA and Rafah Municipality. An assessment of the exact infrastructure configuration required to meet this demand is carried out by a separate engineering evaluation.

II. OBJECTIVES AND METHODOLOGY

The study has the following objectives:

1. Assess current operating environment in Rafah City, including satisfaction with existing services and infrastructure, areas available for industrial development, rental rates, capacity utilization, and other factors..
2. Estimates of market demand in Rafah under both the current political situation and under normal conditions, by sector and line of business.
3. Preferences of potential clients for LIE facilities, including area requirements and prices.
4. Development of a market demand estimate model

The survey was carried out through direct interviews with existing businesses in Rafah. A closed-ended questionnaire was administered to a random sample of businesses in industry, trade, and services. The questionnaire, sample size and distribution, questionnaire administration methodology, and preliminary results were discussed and coordinated with the PRIZIM team.

The survey population includes establishments located in Rafah that are engaged in activities that could potentially locate within a LIE. These include:

1 Manufacturing
2 Wholesale and retail activities, -motor repair, and crafts/ceramics
3 Transportation, storage, and communications
4 Real estate, rental/leasing activities, and other business activities.

In addition to these activities, the population includes all establishments that have received a conditional or temporary operating license. Establishments with such licenses operate under the condition that they will re-locate once suitable industrial property becomes available. A sample size of 92 establishments was selected, and a random selection of businesses was surveyed in Rafah.

III. Survey Results

1. Profile of Businesses

This section describes the characteristics of businesses interviewed. These include economic activities, ownership, proximity to the proposed LIE, capacity utilization, markets and suppliers, and other factors.

Sector and Type of Business

The following table shows percentage of respondents in each sector:

Table1: Nature of business

Description	Frequency	Percent
Industry and manufacturing	57	62
Trade	29	31
Service	6	7
Total	**92**	**100**

Sixty two percent (62 percent) of respondents are engaged in manufacturing activities. Less than one third (29 percent) of respondents is engaged in trade business and seven percent is engaged in services. The following table shows the line of businesses interviewed.

Table2: Type of business

Description	Frequency	Percent	Cumulative Percent
P&M: soft drinks & food	2	2	2
P&M: garments	5	5	7
P&M: furniture	9	10	17
P&M: metal products	5	5	22
P&M: Others	4	4	26
P&M: P&M: Construction material	32	35	61
Trade: wholesale	18	20	81
Trade: retail	11	12	93
Services: repairs machinery	3	4	97
Services: Car repair & maintenance	2	2	99
Services: real estate	1	1	100
Total	**92**	**100**	

Thirty five percent of the survey's respondents engaged in the production and manufacturing (P&M) of construction material, a significant cluster in the local economy. In addition, furniture production constitutes a significant line of production in Rafah area. The Trade: retail category consists largely of businesses that supply the manufacturing businesses with spare parts, accessories, and other inputs. Only six percent of respondents is engaged in services: machinery and car repair.

Ownership of Business and Facilities

The overwhelming majority of respondents (73 percent) lease the businesses facilities. Less than one fourth own their facilities.

Table3: Title of Premises

Title	Frequency	Percent	Cumulative Percent
Rented	67	73	73
Owned	25	27	100
Total	**92**	**100**	

Registration

All survey respondents have registered businesses. Most (59 percent) are sole proprietorship. Thirty seven percent of businesses are registered as partnership companies. Only two percent of businesses are private limited and the same percentage as shareholding companies..

Table4: Registration

Description	Frequency	Percent	Cumulative Percent
Private limited co	2	2	2
Share holding co	2	2	4
Partnership	34	37	41
Sole proprietorship	54	59	100
Total	**92**	**100**	

These results imply that all respondents have formally established businesses

Markets and Clients

Survey respondents were asked to identify their primary markets and the location of their clients/consumers. The marketplace and concentration of clients may have an impact on demand for the LIE and its facilities.

Table5: Primary Market

Description	Frequency	Percent	Cumulative Percent
Gaza	75	82	82
WB & Gaza	14	15	97
Israel	3	3	100
Total	**92**	**100**	

The primary market for most businesses (82 percent) is the Gaza Strip. It was also noted that the overwhelming majority of respondents (89 percent) whose primary market is within the Gaza Strip sell within the borders of Rafah Governorate. In most cases, these transactions take place within the municipal boundary itself. Slightly less than eight percent sell to other governorates in the Gaza Strip, as summarized in Table X.

Table6: Location of most clients

Description	Frequency	Percent	Cumulative Percent
Within the municipality	2	3	3
Within governorate	67	89	92
Within different governorate	6	8	100
Total	**75**	**100**	

In order to further understand the importance of the LIE's location to businesses in Rafah, respondents were asked to estimate the location of their main clients relative to their existing location. The following table illustrates the results:

Table7: Client location within Kilometer radius

Radius in km	Frequency	Percent	Cumulative Percent
3	6	7	7
5	48	52	59
10	28	30	89
More than 10	10	11	100
Total	**92**	**100**	

The results clearly show that approximately 60 percent of the respondents have a client base that is located within five kilometers from their existing location. Slightly less than one third of clients are located within ten kilometers. This finding has important implications for the respondents' willingness to move to the LIE.

While the overwhelming majority of clients (82 percent) of businesses interviewed are in the Gaza Strip market, only 27 percent of main suppliers are located in the Gaza market.

Table8: Main Suppliers

Description	Frequency	Percent	Cumulative Percent
Local	25	27	27
WB & Gaza	53	58	85
Israel	13	14	99
Export	1	1	100
Total	**92**	**100**	

Of the 25 (27 percent) respondents whose suppliers are located in the Gaza Strip, four percent have suppliers within the municipal border. The majority 84 percent has suppliers within the governorate borders. The remainder (12 percent) have suppliers in other governorates is indicated in the following table:

Table9: Location of main suppliers

Description	Frequency	Percent	Cumulative Percent
Within the municipality	1	4	4
Within governorate	21	84	88
Within different governorate	3	12	100
Total	**25**	**100**	

Respondents were again asked to estimate the distance of their main suppliers. The results of these estimates are described below:

Table10: Suppliers' location within kilometer radius

Radius in km	Frequency	Percent	Cumulative Percent
3	2	2	2
5	14	15	17
10	45	49	66
More than 10	31	34	100
Total	**92**	**100**	

Almost 50 percent of all respondents have suppliers located within a 10-kilometer radius from their existing location. Slightly more than one-third of suppliers are located beyond a five-kilometer radius.

Size/Area of Current Facilities

The limited size of current facilities used by respondent businesses is a major factor for business growth and expansion. The following table describes current facilities areas in square meters used by interviewed businesses:

Table11: Size of current facility in m^2

Description	Frequency	Percent	Cumulative Percent	Mean	Std. Error of Mean
0-150	26	28	28	113	5
151-300	35	38	66	235	8
301-450	6	6	72	392	13
451-600	8	9	81	550	19
>751	17	19	100	2,441	388
Total	**92**	**100**		**646**	**114**

More than one fourth (28 percent) of businesses have a small existing area for operations, with a mean area of 113 m^2. Thirty eight percent of respondents use an average area of 235 m^2. A significant portion (19 percent) of respondents use medium to large areas, with an average of 2,441 m^2.

Number of Employees

The results of the survey reveal that most businesses (83 percent) interviewed are small businesses that employ eight workers or fewer. Thirty six percent employ fewer than five workers, and 17 percent employs more than eight workers, as shown in the following table:

Table12: Number of employees

No.	Frequency	Percent	Cumulative Percent
0-4	33	36	36
5-8	43	47	83
>8	16	17	100
Total	**92**	**100**	

Capacity Utilization

The current political situation has severely affected economic activities in the West Bank and Gaza. Many business operations were forced to either shut down or reduce operations. Very few businesses were able to maintain their previous scale of operations. The following two tables provide insights about the situation during June and July of 2001 (during the Al Aqsa Intifada) and prior to September 2000 (prior to the Intifada).

Table13: Today utilized operating capacity

Percent of Utilization	Frequency	Percent	Cumulative Percent	Mean Percent	Std. Error of Mean
50-75	87	95	95	62	1
76-100	5	5	100	79	1
Total	**92**	**100**		**63**	**1**

Table14: Prior to Intifada utilized operating capacity

Percent of utilization	Frequency	Percent	Cumulative Percent	Mean Percent	Std. Error of Mean
51-75	17	19	19	71	1
76-100	75	81	100	93	1
Total	**92**	**100**		**89**	**1**

These results clearly demonstrate the severe deterioration of business activities during the Intifada. Today, 95 percent of businesses utilize 50-75 percent of their capacity, with an average of 62 percent (compared to only 19 percent of businesses prior to Intifada). While only five percent of businesses utilize more than 75 percent of their capacity these days, 81 percent of these businesses utilized more than 75 percent of their capacity prior to the Intifada.

These results indicate that the demand by existing enterprises for expanded premises under current conditions is small, since only five percent of enterprises are operating at more than 75 percent of capacity. Under current conditions, any demand for LIE facilities would most likely come from the relocation rather than the expansion of existing enterprises. Under pre-Intifada conditions, expansion demand by at least some of the 81 percent of enterprises operating at above 75 percent capacity would be added to this demand.

Distance from the LIE

In order to find out if the distance between current locations of respondents and the proposed location of the LIE is a locating factor, interviewees were asked to estimate the traveling time and distance to the new LIE. The results were as follows:

Table15: Distance to LIE in minutes

Minutes	Frequency	Percent	Cumulative Percent	Mean Minutes	Std. Error of Mean
0-3	2	2	2	3	0
4-6	9	10	12	5	0
7-9	1	1	13	7	0
10-12	35	38	51	10	1
> 12	45	49	100	17	1
Total	**92**	**100**		**13**	**1**

Travel time to the proposed LIE is relatively small for the majority of businesses interviewed. While even small distances can have major impacts for commercial operations that require ready access to the central business district, the survey found earlier that most enterprises surveyed already are located within 10 kilometers from their customers and suppliers. Approximately 50 percent of respondents estimate the required time to travel to the LIE to be less than 12 minutes, with an average of 10 minutes. The remaining businesses (49 percent) estimate an average of 17 minutes traveling time to the LIE.

The distance in kilometers between current and new LIE locations is also small, as described in the following table:

Table16: Distance to LIE in Kilometers

Km	Frequency	Percent	Cumulative Percent	Mean km	Std. Error of Mean
0-5	59	64	64	4	0
6-10	31	34	98	7	0
11-15	2	2	100	14	2
Total	**92**	**100**		**5**	**0.5**

Ninety eight percent of respondents are located within ten kilometers of the proposed LIE site. The remaining (2 percent) is located within a 15-kilometer radius. The overall mean distance is about five kilometers.

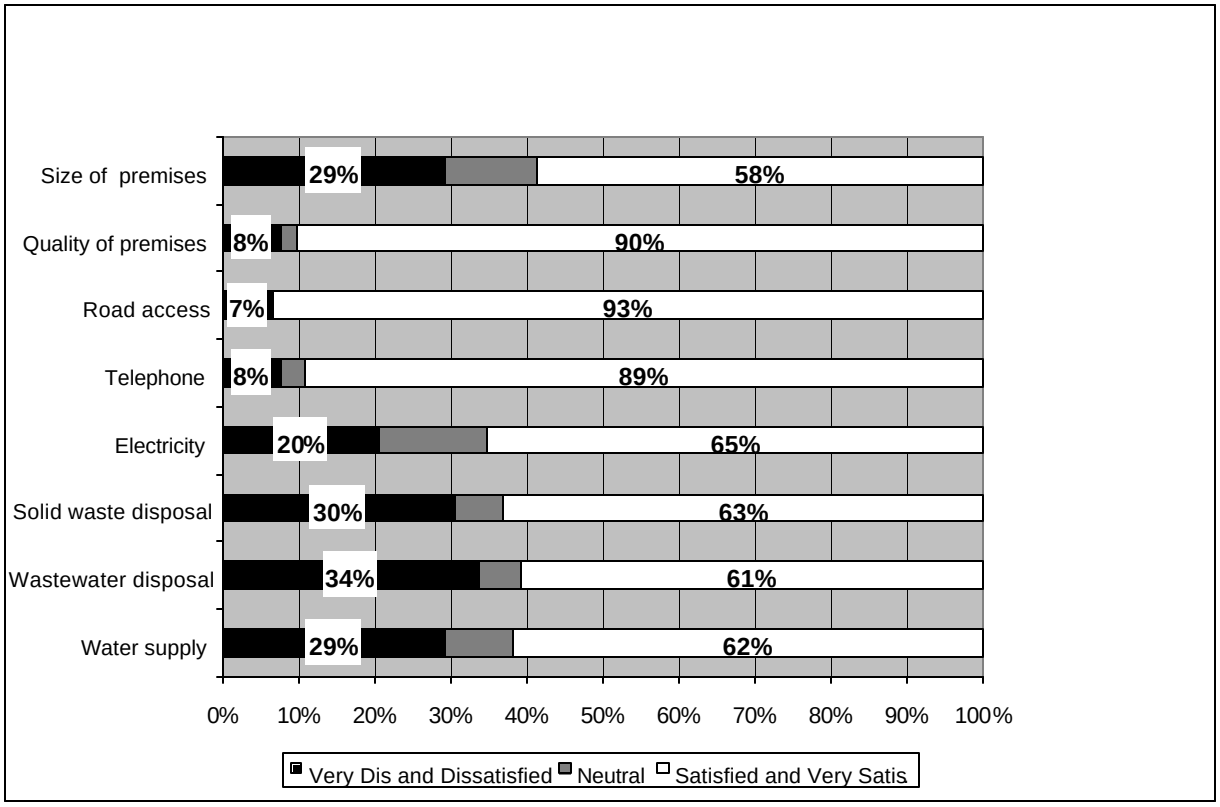
2. Assessment of Current Services and Facilities

Satisfaction with current services and facilities is a major location determinant. Respondents were asked to rate their level of satisfaction according to the following scale:

1 Very dissatisfied
2 Dissatisfied
3 Neither/Nor satisfied
4 Satisfied
5 Very Satisfied

The results are clarified in the following figure

Figure: Satisfaction with the current services



Surprisingly, the majority of respondents are satisfied with most current infrastructure and services. Satisfaction with road access (93 percent) and current premises (90 percent) in particular is very high. However, a significant proportion of respondents are dissatisfied or very dissatisfied with the size of premises (29 percent), solid waste (30 percent), wastewater disposal (34percent), electricity (20 percent) and water supply (29 percent).

The following table provides quantitative scores for each service under evaluation. As shown in the table, most services are scored above the average of three (a score of five "5" means "very satisfied" while a score of one "1" means "very dissatisfied").

Table17: Satisfaction with the current services

Services	Mean	Std. Error of Mean
Water supply	3.5	0.2
Wastewater disposal	3.4	0.2
Solid waste disposal	3.4	0.2
Electricity	3.8	0.2
Telephone	4.4	0.1
Road access	4.6	0.1
Quality of premises	4.5	0.1
Size of premises	3.6	0.2

Although there is a substantial degree of satisfaction with most factors under consideration, satisfaction with the size, wastewater and solid waste disposal and water supply ranks lower than the satisfaction with other service levels. The proposed LIE could offer these enterprises superior facilities. Second, the researcher believes that many of those who showed satisfaction built their opinion based on comparisons between the quality of such services in 1996 and 2001 where significant improvements have been made.

3. Current Rent Rates and Willingness to Pay (Amount of Rent)

Rent Rates of Rented Facilities

The cost of rent in the new LIE would be an important factor in the decision to expand or relocate to the proposed LIE. Respondents were asked to state the rent expense per m^2 per year of their rented facilities. The following table depicts rent cost per m^2 per year as stated by respondents:

Table18: Rent rates of rented facilities per year per m2 in USD

Rent	Frequency	Percent	Cumulative Percent	Mean $	Std. Error of the Mean $
0- 7	44	67	67	4	0
7.1-14	20	30	97	10	1
14.0-21	1	1.5	98.5	15	0
21.1-28	0	0	98.5	0	0
28.1-35	1	1.5	100	34	0
Total	**66**	**100**		**7**	**1**

This broad variation of rental rates can be explained by several reasons. First, some businesses benefit from old, rent-controlled contracts that are locked into below-market rates. Second, the rental rates are a function of location, and vary widely depending on the kind of facility.
The overall average is about seven dollars per m^2 per year, as outlined above. There is only one extreme case of businesses that pay rental rate of $35 per m^2 due to its strategic location in Rafah.

However, in order to verify these results and to obtain approximate figures about current market rental rates, Massar conducted several interviews with real estate mediators in Rafah. The following table summarizes the results:

Table19: Current market rental rates

Location	Rent per m^2
Down town	53-$83
Storage, manufacturing and services areas	35-$53

These figures reflect current market rental rates within the borders of Rafah municipality. For the proposed LIE, rental rates of this category (storage and manufacturing) might be used as the basis for pricing strategies in the future

Rent of Similar Premises to those Owned by Respondents

Respondents who own their facilities were asked to estimate the current market rent of similar facilities. Twenty-six respondents provided answers, which are summarized in the following table:

Table20: Rent of similar premises per year per m2 in USD

Rent $	Frequency	Percent	Cumulative Percent	Mean $	Std. Error of Mean $
0-7	18	69	69	3	0
7.1-14	6	23	92	10	1
14.1-21	1	4	96	16	0
21.1-28	0	0	96	0	0
> 28	1	4	100	35	0
Total	**26**	**100**		7	1

Bearing in mind that the respondents in this case were referring to already established rental contracts and not today's' rental market rate. The results indicate that owners' estimation for rent is somewhat close to rent mentioned by those who rent their premises. Ninety-two percent stated that the rent for similar premises would be a round $14 or less, compared to 97 percent of respondents renting facilities as explained in the previous table. However, the rent mean of all categories is seven dollars similar to the rent mean $28 mentioned earlier.

In order to get an overall picture of rental rates, the two previous tables were combined and the results are indicated in the following table:

Table21: Rent rates of and estimated rates of similar premises per year per m2 in USD

Rent $	Frequency	Percent.	Cumulative Percent	Mean $	Std. Error of Mean $
0-7	62	68	68	4	0
7.1-14	26	28	96	10	0
14.1-21	2	2	98	15	0
21.1-28	0	0	98	0	0
> 28	2	2	100	35	1
Total	92	100		7	1

The results do not deviate significantly from any of the previous results. Around 96 percent pay less than $14 per m^2 per year with an average of seven dollars for all respondents.

Rent Rates for the LIE as Stated by Respondents

Respondents were asked to indicate the amount they would be willing to pay for each m^2 in the new LIE. Responses are summarized in the following table:

Table22: Maximum rent year per m2 in USD

Rent	Frequency	Percent	Cumulative Percent	Mean	Std. Error of Mean
0-7	75	95	95	3	0
7.1-14	4	5	100	13	1
Total	**79**	**100**		**3.2**	**0.3**

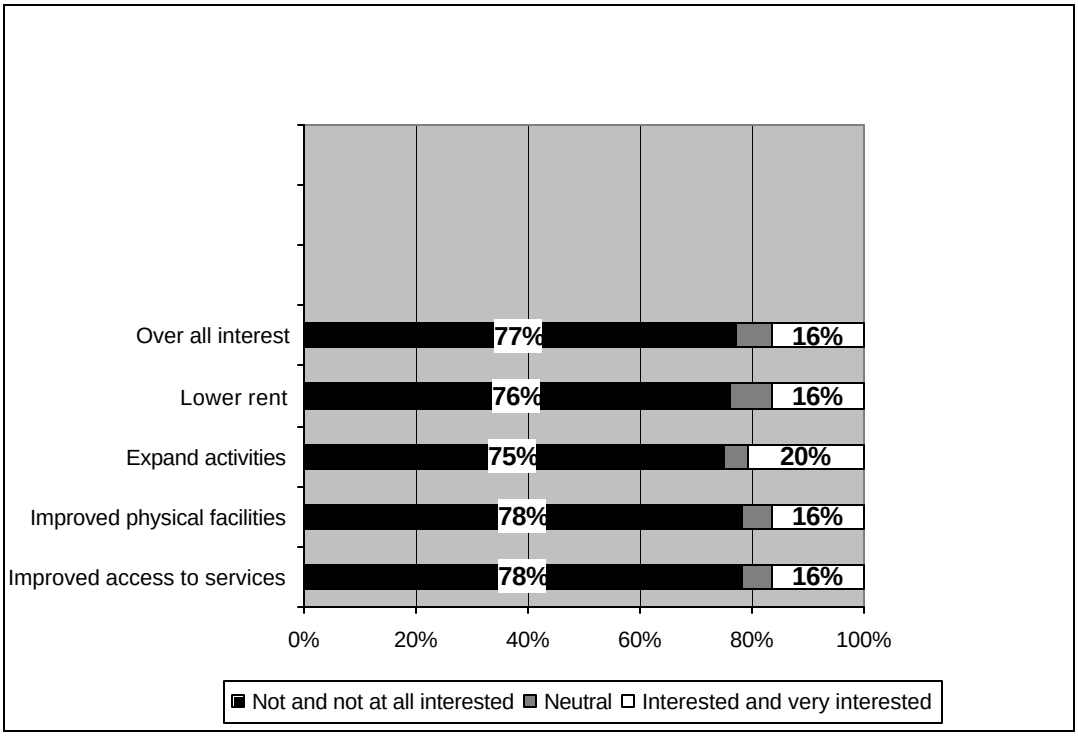
The results indicate that the majority of respondents (95 percent) lie in the lowest category compared to 67 percent of respondents who are supposedly pay the same rent as appear in the previous Table21. Only five percent are willing to pay seven to fourteen dollars (7-$14) per m^2 per year compared to 30 percent of respondents who stated that they currently pay (7-$14).

4. Demand for Local Industrial Estate (Current Situation)

As discussed earlier, most businesses are currently suffering from restrictions and closures imposed by Israel, which impede potential growth and expansion. Under these conditions, one would not expect businesses to move and invest in new locations to expand existing operations. Relocation of existing capacity would seem to be the most likely scenario for any location of businesses in the LIE. In order to verify these arguments, respondents were asked to express their interest to relocate to the new proposed LIE in Rafah area according to the following scale:

1. Not interested at all
2. Not interested
3. Neither/Nor interested
4. Interested
5. Very interested

Figure: Interest in relocation to the LIE under current conditions



Sixteen percent of all respondents showed an over-all interest in relocating to the LIE. Sixteen percent showed interest in relocating to other factors (such as lower rent, quality of facilities and services). Surprisingly, 20 percent of respondents did express an interest in expanding rather than just relocating their existing facilities.

The following table shows the mean score of interest to relocate with a maximum of five "5" and minimum of one "1". All answers as shown in Table23 are below the average of three '3", indicating a moderate interest in relocating to the proposed LIE.

Table23: Relocating interest to LIE under current situation for improving the following

Item	Mean	Std. Error of mean
Improved access to services	1.9	0.14
Improved physical facilities	1.9	0.14
Expand activities	2	0.15
Lower rent	2	0.15
Over all interest	**1.9**	**0.15**

Those who expressed interest to relocate to the proposed LIE in Rafah were asked to estimate the required area of facilities in the new LIE. The results are shown in the following table:

Table24: Required size of facility in LIE in m^2 under current conditions

Area M^2	Frequency	Valid Percent	Cumulative Percent	Mean	Std. Error of Mean
0-100	1	5	5	60	0
101-200	2	11	16	200	0
201-300	3	16	32	283	17
401-500	6	31	63	500	0
>600	7	37	100	2,143	261
Total	**19**	**100**		**1,016**	**224**

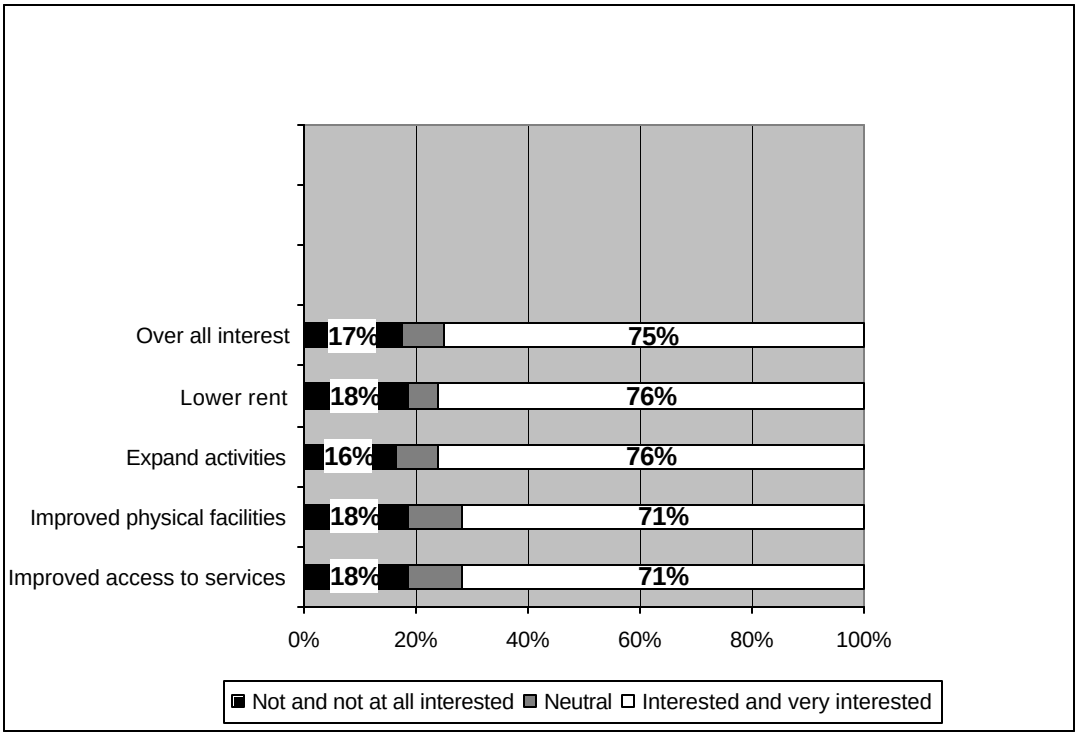
The largest two segments of respondents (comprise 68 percent) would require an area above $400m^2$, with means of 500 m^2 and 2,143 m^2. The third largest group of businesses (16 percent) stated that they require areas between 201 to $300m^2$, with an average of $283m^2$. Eleven percent of businesses would require an area with an average of $200m^2$. The remaining five percent would require an average area of 60 m^2.

5. Demand for Local Industrial Estate (Normal Situation)

Respondents were also asked about their interest to relocate if the political situation returns back to normal – that is, pre-Intifada conditions. Such a scenario would increase interest in expanded facilities and improved infrastructure. Respondents were asked to rate their interest based on the following scale:

1. Not interested at all
2. Not interested
3. Neither/Nor interested
4. Interested
5. Very interested

Figure: Interest in relocating to the LIE under normal conditions



Unlike results under the current scenario, responses under the "pre-Intifada" assumption are much more positive. Roughly three-quarters of respondents are interested or very interested in relocating to the new LIE. Within this category, there is an almost equal distribution between the "interested" and "very interested" respondents. Lower rent and expansion of activities are the most important driving factors. Other factors for relocation are almost equally distributed. For more details see Table? In Annex?. These results imply that there will be a significant increase in demand for the new LIE once the political situation stabilizes.

As shown in the following table, the degree of interest for the new LIE under normal conditions scenario is above the average ranking of three "3".

Table25: Relocating interest to LIE under normal situation for various factors

Item	Mean	Std. Error of Mean
Improved access to services	3.9	0.14
Improved physical facilities	3.9	0.14
Expand activities	4	0.14
Lower rent	4	0.14
Over all interest	**4**	**0.14**

Table26: Required size of facility in LIE in m^2 in normal conditions

Area m2	Frequency	Percent	Cumulative Percent	Mean	Std. Error of Mean
0-100	3	4	4	87	13.33
101-200	8	10	14	175	9.45
201-300	11	15	29	290	6.10
301-400	8	11	40	394	6.25
401-500	16	21	61	500	.00
501-600	2	3	64	600	.00
>600	27	36	100	1,826	176.51
Total	**75**	**100.0**		**887**	**104.04**

5. Demand and Relations with Other Variables

This section examines the relationship between demand for LIE facilities under current and normalized conditions and other variables such as nature of business, size of facility, operating capacity utilized, ownership, and others.

Over all Interest in Relocating to LIE and Nature of Businesses

a. Current situation
Pearson Chi-Square test shows no significant value to reject the independency between overall interest and the sector of business. Therefore, the statistical results show that there is no relation ship between the nature of the business and its willingness to relocate to the LIE under current political situation.

b. Normal situation
The Pearson Chi-Square test shows no significant value to reject the independency between the nature of the business and willingness to relocate. Therefore, the statistical results show that there is no relationship between the nature of the business and its willingness to relocate to the LIE under a normalized political and economic situation.

Over all Interest in Relocating to LIE and Size of Current Facilities

a. Current situation
The results indicate that there is no significant relationship between demand for LIE and current size of business facilities under Intifada conditions. Pearson Chi-Square test shows no significant between the size of current facility and demand to relocate.

b. Normal situation
Chi-Square test significant value indicates that there is no relationship between the size of business and interest to relocate to the Lie under normal situation.

Over all Interest in Relocating to LIE and Number of Employees

a. Current situation
The cross tabulation results indicate that there is no significant relationship between demand for LIE and number of employees under Intifada conditions. Pearson Chi-Square test shows no significant value to reject the independency between interest to relocate and number of employees in the business.

b. Normal situation
Chi-Square test significant value indicates that there is no relationship between the number of employees and interest to relocate to the LIE under normal situation.

Over all Interest in Relocating to LIE and Today's and Prior to Intifada Capacity Utilization

a. Current Situation
The results show that Chi-Square Test significant value (2 sided) is significantly above 0.05 indicating weak relationship.

b. Normal Situation
The results show that Chi-Square Test significant value (2 sided) is significantly above 0.05 indicating weak relationship.

Over all Interest in Relocating to LIE and Title of Premises

a. Current Situation
Chi-Square Tests significant value (2 sided) equals 0.17, meaning that there is no association between title of business and interest to relocate under current conditions.

b. Normal Situation
Chi-Square Tests significant value (2 sided equals 0.07) suggests that there is a relationship between interest to relocate to the LIE and the title of business. The tendency to move to the LIE is higher when the business facility is rented as appears in the table below.

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Table27: Interest to relocate and title of business

Over all interest in normal conditions		**Title of Premises**		**Total**
		Rented	**Owned**	
Not interested	Freq.	8	8	16
	Percent	11.9%	32%	17.4%
Neutral	Freq.	5	2	7
	Percent	7.5%	8%	7.6%
Interested	Freq.	54	15	69
	Percent	80.6%	60%	75%
Total	**Freq.**	**67**	**25**	**92**
	Percent	**100%**	**100%**	**100%**

Over all Interest in Relocating to LIE and Current Rent Rates

a. Current Situation
Pearson Chi-Square test shows no significant value to reject the independency between rent rates and interest to relocate under current political conditions

b. Normal Situation

Chi-Square Test reveals significant value (2 sided) equals 0.12, signaling a weak relationship between rent rates and interest to relocate to the LIE under normal conditions.

6. Appropriateness of the Proposed LIE

Field surveyors briefly described the LIE location in Rafah area to respondents. Respondents were then asked to state their opinion on whether is the proposed LIE is appropriate for them or not on the following scale:

1. Not appropriate at all
2. Not appropriate
3. Neutral
4. Appropriate
5. Very appropriate

The following results were obtained:

Table28: Appropriateness of LIE location

Answer	Frequency	Percent
Not appropriate at all	10	11
Not appropriate	5	5
Neutral	7	8
Appropriate	34	38
Very appropriate	34	38
Total	**90**	**100**

Thirty eight percent of respondents indicated that the proposed LIE is very appropriate for their activities. A similar percentage (38 percent) judged the proposed LIE " Appropriate". Only 16 percent rate the proposed LIE as "not appropriate" or "not appropriate at all"... In general the results indicate acceptability (mean of 3.9 out of 5) of the new location for the majority of businesses.

Annex C: Draft Market Demand: LIE in Gaza City

Draft Report (2)

MARKETING DEMAND
LOCAL INDUSTRIAL ESTATE IN GAZA

Submitted to:

PRIZIM Project and the Palestinian Industrial Estate & Free Zone Authority (PIEFZA)

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July 2001

I. INTRODUCTION

The PRIZIM project is assisting PIEFZA in evaluating several potential Local Industrial Estates (LIEs). Three sites have been identified for detailed analysis, including one in the Gaza District. PRIZIM project support includes an initial evaluation of these potential LIEs to arrive at a project description, cost estimate, demand estimate, and pro forma financial performance calculation for each LIE. Massar Associates, PRIZIM's primary Palestinian partner firm, conducted market surveys for each of the three proposed locations: Gaza, Rafah and Nablus. This report describes the results of the Gaza survey.

Local Industrial Estate in Gaza

Industrial activities in Gaza consist primarily of small and micro-enterprises workshops. These are dispersed throughout the urban area, creating conflicts with residential land uses and generating, noise, air and water pollution and significant traffic congestion within the city center. The rapidly expanding population and economic development have led to an acute shortage of land within the municipal area, which is expressed in the high land costs in and around the city. Many industrial enterprises operate in urban locations on the basis of temporary permits. There thus appears to be demand for serviced industrial land and facilities to accommodate relocation and expansion of industry.

Location

The site proposed for the development of Gaza Industrial Estate is located to the north east of Gaza City within the borders of Gaza Municipality area. It is known as "Al-Awqaf" on the east border of Gaza Strip, about 3.5 kilometers away of the existing Gaza LIE near Karni, and about 28-kilometer from Gaza International Airport. The total area is 635,5 donums (63.5 hectare).

In Gaza City there are two LIEs, the existing one near Karni crossing point called Gaza Industrial Estate (GIE), which had been developed by Palestine Industrial Estate Development & Management Co. (PIEDCO), a Palestinian private company. The other industrial estate is a proposed one to the North East of the city. This LIE is the one considered in this study.

This survey examines the demand for an LIE on the proposed site, for the general types of facilities anticipated by the NMIC. An assessment of the exact infrastructure configuration required to meet this demand is carried out by a separate engineering evaluation.

II. OBJECTIVES AND METHODOLOGY

The study has the following objectives:

1. Assess current operating environment in Gaza City, including satisfaction with existing services and infrastructure, areas available for industrial development, rental rates, capacity utilization, and other factors..
2. Estimates of market demand in Gaza under both the current political situation and under normal conditions, by sector and line of business.
3. Preferences of potential clients for LIE facilities, including area requirements and prices.
4. Development of a market demand estimate model

The survey was carried out through direct interviews with existing businesses in Gaza. A closed-ended questionnaire was administered to a random sample of businesses in industry, trade, and services. The questionnaire, sample size and distribution, questionnaire administration methodology, and preliminary results were discussed and coordinated with the PRIZIM team.

The survey population includes establishments located in Gaza that are engaged in activities that could potentially locate within a LIE. These include:

1 Manufacturing
2 Wholesale and retail activities, -motor repair, and crafts/ceramics
3 Transportation, storage, and communications
4 Real estate, rental/leasing activities, and other business activities.

In addition to these activities, the population includes all establishments that have received a conditional or temporary operating license. Establishments with such licenses operate under the condition that they will re-locate once suitable industrial property becomes available. A sample size of 198 establishments was selected, and a random selection of businesses was surveyed in Gaza-.

III. SURVEY RESULTS

1. Profile of Businesses

This section describes the characteristics of businesses interviewed. These include economic activities, ownership, proximity to the proposed LIE, capacity utilization, markets and suppliers, and other factors.

Sector and Type of Business

The following table shows percentage of respondents in each sector:

Table1: Nature of business

Description	Frequency	Percent
Industry and manufacturing	108	54
Trade	53	27
Service	37	19
Total	**198**	**100**

Fifty four percent of respondents are engaged in manufacturing activities. More than one fourth (27 percent) of respondents is engaged in trade business and 19 percent is engaged in services. The following table describes the line of businesses interviewed.

Table2: Type of business

Description	Frequency	Percent	Cumulative Percent
P&M: soft drinks & food	9	4.5	4.5
P&M: garment	13	6.5	11
P&M: utensils	2	1	12
P&M: furniture	19	10	22
P&M: leather	2	1	23
P&M: metal products	25	12.5	35.5
P&M: Others	13	6.5	42
P&M: non metal products	11	5.5	47.5
P&M: Construction material	13	6.5	54
Trade: wholesale	35	18	72
Trade: retail	17	8.5	80.5
Services: repairs personal	3	1.5	82
Services: repairs machinery	5	2.5	84.5
Services: Car repair & maintenance	11	5.5	90
Services: real estate	2	1	91
Services: food	5	2.5	93.5
Services: Transportation	2	1	94.5
Other	11	5.5	100
Total	**198**	**100**	

Fifty-four (54 percent) of the survey's respondents engaged in production and manufacturing (P&M). In addition, metal workshops (work closely with blacksmith and aluminum) such as

window frames, doorframes and other metal tools and equipment is a significant cluster in the local economy constituting 12.5 percent. Production of furniture is also significant as indicated above (10 percent). The Trade: retail category consists largely of businesses that supply the manufacturing businesses with spare parts, accessories, and other inputs. Car repair and maintenance (5.5 percent of the sample) dominates the services category.

Ownership of Business and Facilities

The majority of respondents (52 percent) own the businesses facilities. The remaining (48 percent) owns their facilities.

Table3: Title of Premises

Title	Frequency	Percent	Cumulative Percent
Rented	95	48	48
Owned	103	52	100
Total	**198**	**100**	

Registration

All survey respondents have registered businesses. Most (61 percent) are sole proprietorship. Fifty two percent of businesses are registered as private limited companies and 36 percent as sole proprietorships. Only six percent of businesses are partnerships.

Table4: Registration

Description	Frequency	Percent	Cumulative Percent
Private limited co.	103	52	52
Share holding co.	1	1	53
Partnership	12	6	59
Sole proprietorship	72	36	95
Cooperative	1	1	96
Other	9	4	100
Total	**198**	**100**	

These results imply that all respondents have formally established businesses

Markets and Clients

Survey respondents were asked to identify their primary markets and the location of their clients/consumers. The marketplace and concentration of clients may have an impact on demand for the LIE and its facilities.

Table5: Primary Market

Description	Frequency	Percent	Cumulative Percent
Local	133	67	67
WB & Gaza	54	27	94
Israel	8	4	98
Export	3	2	100
Total	**198**	**100**	

The primary market for most businesses (67 percent) is the Gaza Strip. The Israeli market is of less important than the West Bank market, especially given the sever limitations of movements of goods and people in the last ten months.

It was also noted that slightly more than two thirds of respondents whose primary market is within the Gaza Strip sell within the borders of different Governorates in the Strip. In several cases, these transactions take place within the municipal boundary itself as summarized in Table6.

Table6: Location of most clients

Description	Frequency	Percent
Within the municipality	17	13
Within governorate	24	18
Within different governorate	92	69
Total	**133**	**100**

In order to further understand the importance of the LIE's location to businesses in Gaza, respondents were asked to estimate the location of their main clients relative to their existing location. The following table illustrates the results:

Table7: Client location within Kilometer radius

Description/Kilometer	Frequency	Percent	Cumulative Percent
1	2	1	1
2	2	1	2
3	2	1	3
5	14	7	10
10	43	22	32
More than 10	135	68	100
Total	**198**	**100**	

The results clearly show that approximately two thirds (68 percent) of the respondents have a client base that is located more than 10 kilometers from their existing location. This finding has important implications for the respondents' willingness to move to the LIE.

While the overwhelming majority of clients (67 percent) of businesses interviewed are in the Gaza Strip market, only 31 percent of suppliers are located in the Gaza Strip:

Table8: Main Suppliers

Description	Frequency	Percent	Cumulative Percent
Local	62	31	31
WB & Gaza	61	31	62
Israel	55	28	90
Export	20	10	100
Total	**198**	**100**	

As appears in the above table, main suppliers are almost equally distributed in all markets except for 10 percent from abroad. These figures support the conclusion that most businesses in Gaza city are relatively well established and have clients and suppliers in various districts and markets. Therefore, these types of businesses are most likely to search for new locations in the LIE.

Of the 62 (31 percent) respondents whose suppliers are located in the Gaza Strip, 45 percent have suppliers within the various governorates and 32 percent have suppliers concentrated in the governorate borders as indicated in the following table:

Table9: Location of main suppliers

Description	Frequency	Percent	Cumulative Percent
Within the municipality	14	23	23
Within governorate	20	32	55
Within different governorates	28	45	100
Total	**62**	**100**	

Respondents were again asked to estimate the distance of their main suppliers. The results of these estimates are described below:

Table10: Suppliers' location within kilometer radius

Description/Kilometer	Frequency	Percent	Cumulative Percent
3	2	1	1
5	15	8	9
10	16	8	17
More than 10	165	83	100
Total	**198**	**100**	

Eighty three percent of all respondents have suppliers located beyond a 10-kilometer radius from their existing location. The remaining 17 percent rth of suppliers are located within a ten-kilometer radius.

Size/Area of Current Facilities

The limited size of current facilities used by respondent businesses is a major factor for business growth and expansion. The following table describes current facilities areas in square meters used by interviewed businesses:

Table11: Size of current facility in m^2

Description m^2	Frequency	Percent	Cumulative Percent	Mean m^2	Std. Error of Mean
0-150	111	56	56	103	3
151-300	40	20	76	221	7
301-450	8	4	80	379	8
451-600	15	8	88	500	.00
>751	24	12	100	2,086	322
Total	**198**	**100**		**408**	**59**

The majority (56 percent) of businesses have relatively a small existing area for operations, with a mean area of 103 m^2. Twenty percent of respondents use an average area of 221 m^2. Some 12 percent of respondents use medium to large areas, with an average of 2,086 m^2.

Number of Employees

The results of the survey reveal that most businesses (78 percent) interviewed are small businesses that employ eight workers or fewer. Forty nine percent employ fewer than five workers, and 22 percent employs more than eight workers, as shown in the following table:

Table12: Number of employees

No.	Frequency	Percent	Cumulative Percent
0-4	96	49	49
5-8	58	29	78
>8	44	22	100
Total	**198**	**100**	

Capacity Utilization

The current political situation has severely affected economic activities in the West Bank and Gaza. Many business operations were forced to either shut down or reduce operations. Very few businesses were able to maintain their previous scale of operations. The following two tables provide insights about the situation during June and July of 2001 (during the Al Aqsa Intifada) and prior to September 2000 (prior to the Intifada).

Table13: Today utilized operating capacity

Percent of utilization	Frequency	Percent	Cumulative Percent	Mean Percent	Std. Error of Mean
0-25	50	25	25	14	1
26-50	101	51	76	41	1
51-75	29	15	91	66	1
76-100	18	9	100	88	2
Total	**198**	**100**		**42**	**2**

Table14: Prior to Intifada utilized operating capacity

Percent of utilization	Frequency	Percent	Cumulative Percent	Mean Percent	Std. Error of Mean
26-50	11	5	5	46	3
51-75	69	35	40	67	1
76-100	118	60	100	90	1
Total	**198**	**100**		**74**	**1**

These results clearly demonstrate the severe deterioration of business activities during the Intifada. Today, 76 percent of businesses utilize less than 50 percent of their capacity, with an average of 32 percent (compared to only five percent of businesses prior to Intifada). While only

nine percent of businesses utilize more than 75 percent of their capacity these days, 60 percent of these businesses utilized more than 75 percent of their capacity prior to the Intifada.

These results indicate that the demand by existing enterprises for expanded premises under current conditions is small, since only nine percent of enterprises are operating at more than 75 percent of capacity. Under current conditions, any demand for LIE facilities would most likely come from the relocation rather than the expansion of existing enterprises. Under pre-Intifada conditions, expansion demand by at least some of the 60 percent of enterprises operating at above 75 percent capacity would be added to this demand.

Distance from the LIE

In order to find out if the distance between current locations of respondents and the proposed location of the LIE is a locating factor, interviewees were asked to estimate the traveling time and distance to the new LIE. The results were as follows:

Table15: Distance to LIE in minutes

Minutes	Frequency	Percent	Cumulative Percent	Mean minute	Std. Error of Mean
4-6	20	10	10	5	0
7-9	33	17	27	8	0
10-12	78	39	66	10	0
> 12	67	34	100	16	0
Total	**198**	**100**		**11**	**0**

Travel time to the proposed LIE is relatively small for the majority of businesses interviewed. While even small distances can have major impacts for commercial operations that require ready access to the central business district, the survey found earlier that most enterprises surveyed already are located more than ten kilometers from their customers and suppliers. Two-thirds of respondents estimate the required time to travel to the LIE to be less than 12 minutes, with an average of 10 minutes. The remaining businesses (34 percent) estimate an average of 16 minutes traveling time to the LIE.

The distance in kilometers between current and new LIE locations is also small, as described in the following table:

Table16: Distance to LIE in Kilometers

Km	Frequency	Percent	Cumulative Percent	Mean km	Std. Error of Mean
0-5	98	50	50	4	0
6-10	74	37	87	9	0
11-15	26	13	100	12	0
Total	**198**	**100**		**7**	**0**

Eighty seven percent of respondents are located within ten kilometers of the proposed LIE site. Almost all other respondents are located within a 15-kilometer radius. The overall mean distance is about seven kilometers.

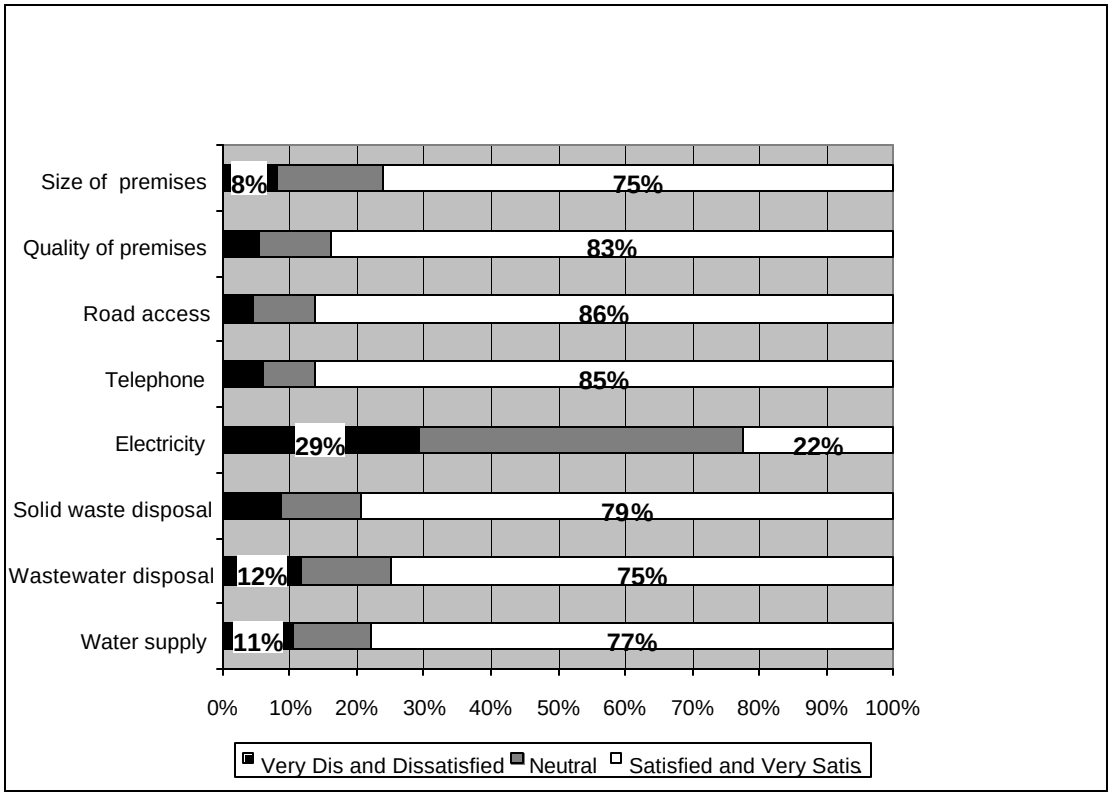
2. Assessment of Current Services and Facilities

Satisfaction with current services and facilities is a major location determinant. Respondents were asked to rate their level of satisfaction according to the following scale:

1 Very dissatisfied
2 Dissatisfied
3 Neither/Nor satisfied
4 Satisfied
5 Very Satisfied

The results are clarified in the following figure

Figure1: Satisfaction with the current services



The majority of respondents are satisfied with most current infrastructure services. Dissatisfaction with electricity services is obvious (29 percent). In addition, a significant proportion (51percent) is neither satisfied nor dissatisfied. Furthermore, there are also significant proportions of respondents who are neutral across all questions.

The following table provides quantitative scores for each service under evaluation. As shown in the table, most services are scored above the average of three (a score of five “5” means “very satisfied” while a score of one “1” means “very dissatisfied”).

Table17: Satisfaction with the current services

Services	Mean	Std. Error of mean
Water supply	3.68	0.07
Wastewater disposal	3.65	0.06
Solid waste disposal	3.74	0.06
Electricity	2.76	0.08
Telephone	3.94	0.06
Road access	3.82	0.04
Quality of premises	3.84	0.05
Size of premises	3.71	0.05

Although there is a substantial degree of satisfaction with most factors under consideration, satisfaction with electricity ranks lower than the satisfaction with other service levels. The proposed LIE could offer these enterprises with reliable electricity services. Second, the researcher believes that many of those who showed satisfaction built their opinion based on comparisons between the quality of such services in 1996 and 2001 where significant improvements have been made.

3. Current Rent Rates and Willingness to Pay (Amount of Rent)

Rent Rates of Rented Facilities

The cost of rent in the new LIE would be an important factor in the decision to expand or relocate to the proposed LIE. Respondents were asked to state the rent expense per m^2 per year of their rented facilities. The following table depicts rent cost per m^2 per year as stated by respondents:

Table18: Rent rates of rented facilities per year per m^2 in USD

Rent $/Year/$m^2$	Frequency	Percent	Cumulative Percent	Mean $	Std. Error of mean$
0-7	27	28	28	4	0
7.1-14	19	20	48	11	1
14.1-21	14	15	63	19	0
21.1-28	17	18	81	26	1
28.1-35	9	10	91	33	1
35.1-42	3	3	94	42	1
42.1-49	1	1	95	44	0
49.1-56	1	1	96	53	0
56.1-63	2	2	98	61	0
>63	2	2	100	106	35
Total	**95**	**100**		**20**	**2**

This broad variation of rental rates can be explained by several reasons. First, some businesses benefit from old, rent-controlled contracts that are locked into below-market rates. Second, the rental rates are a function of location, and vary widely depending on the kind of facility. The overall average is about $20 per m^2 per year, as outlined above. There are two cases of businesses that pay rental rates in excess of $63 per m^2 due to their strategic location.

However, in order to verify these results and to obtain approximate figures about current market rental rates, Massar conducted several interviews with real estate mediators in Gaza. The following table summarizes the results:

Table19: Current market rental rates

Location	Rent per m^2/Year
Down town	176-$246
Main street	$53-$106
Storage, manufacturing and services areas	35-$88

These figures reflect current market rental rates within the borders of Gaza municipality. Storage, manufacturing and services rental rates are similar to almost nine percent of businesses whose rental rates are described in Table18. For the proposed LIE, rental rates of this category (storage and manufacturing) might be used as the basis for pricing strategies in the future

Rent of Similar Premises to those Owned by Respondents

Respondents who own their facilities were asked to estimate the current market rent of similar facilities. One hundred and three respondents provided answers, which are summarized in the following table:

Table20: Rent of similar premises per year per m2 in USD

Rent $/Year/m^2	Frequency	Percent	Cumulative Percent	Mean $	Std. Error of Mean
0- 7	26	25.2	25.2	4	0
7.1-14	39	37.9	63.1	12	0
14.1-21	16	15.5	78.6	19	0
21.1-28	11	10.7	89.3	26	1
>28	11	10.7	100.0	60	7
Total	**103**	**100**		**18**	**2**

Bearing in mind that the respondents in this case were referring to already established rental contracts and not today's' rental market rate. The results indicate that owners' estimation for rent in category 7.1-$14 is almost double to rent mentioned by those who rent their premises. Seventy eight percent stated that the rent for similar premises would be a round $21 or less, compared to 15 percent of respondents renting facilities as explained in the previous table. However, the rent mean of all categories is $18 closed to the rent mean $20 mentioned earlier.

In order to get an overall picture of rent rates, the two previous tables were combined. Results are indicated in the following table:

Table21: Rent rates and estimated rates of similar premises per year per m2 in USD

Rent $/Year/m^2	Frequency	Percent.	Cumulative Percent	Mean $	Std. Error of Mean
0- 7	53	27	27	4	0
7.1-14	58	29	56	12	0
14.1-21	30	15	71	19	0
21.1-28	28	14	85	26	0.5
>28	29	15	100	52	5
Total	**198**	**100**		**19**	**1.5**

The results do not deviate significantly from any of the previous results. Around 71 percent pay less than $21 per m^2 per year, with an average of $19 for all respondents.

Rent Rates for the LIE as Stated by Respondents

Respondents were asked to indicate the amount they would be willing to pay for each m^2 in the new LIE. Responses are summarized in the following table:

Table22: Maximum rent year per m^2 in USD

Rent $/Year/$m^2$	Frequency	Percent	Cumulative Percent	Mean $	Std. Error of Mean $
0-7	173	88	88	3	0
7.1-14	16	8	96	9	0
14.1-21	1	1	97	15	0
21.1-28	3	2	99	20	0
> 28	2	1	100	25	0
Total	**195**	**100**		**4**	**0**

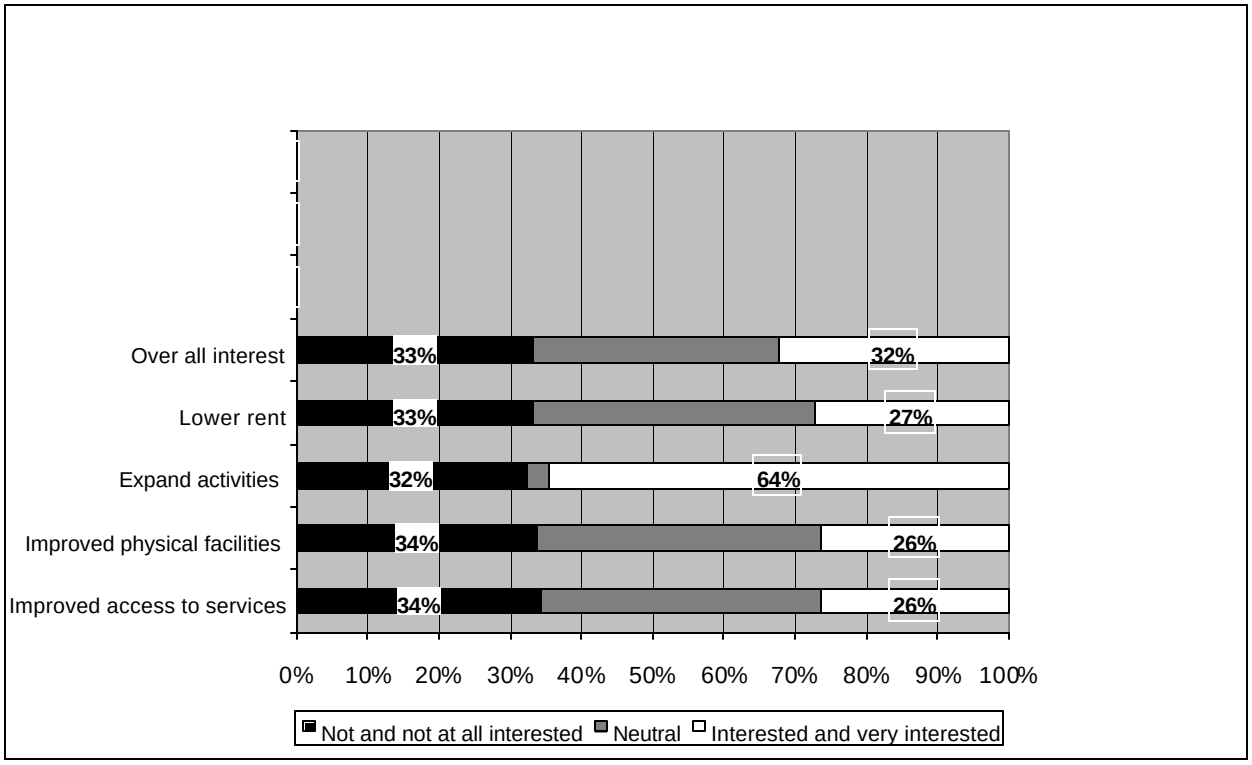
The results indicate that the majority of respondents (88 percent) lie in the lowest category compared to 27 percent of respondents who are supposedly pay the same rent as appear in the previous Table21. Eight percent suggests seven (7) to 14 US dollars per m^2 per year. Only one percent is willing to pay above $28 per m^2 per year compared to 19 percent of respondents who stated that they currently pay above $28 (Table18).

4. Demand for Local Industrial Estate (Current Situation)

As discussed earlier, most businesses are currently suffering from restrictions and closures imposed by Israel, which impede potential growth and expansion. Under these conditions, one would not expect businesses to move and invest in new locations to expand existing operations. Relocation of existing capacity would seem to be the most likely scenario for any location of businesses in the LIE. In order to verify these arguments, respondents were asked to express their interest to relocate to the new proposed LIE in Gaza area according to the following scale:

1. Not interested at all
2. Not interested
3. Neither/Nor interested
4. Interested
5. Very interested

Figure2: Interest in relocation to the LIE under current conditions



Almost one-third of all respondents showed an over-all interest in relocating to the LIE. Sixty four percent showed a particular interest in expanding facilities in the LIE, with other factors (such as quality of facilities and services) ranking somewhat lower in importance (26 percent). Furthermore, 27 percent expressed interest to relocate to a lower cost facility.

The following table shows the mean score of interest to relocate with a maximum of five "5" and minimum of one "1". All answers as shown in Table23 are below the average of three '3", indicating a moderate interest in relocating to the proposed LIE.

Table23: Relocating interest to LIE under current situation for improving the following

Item	Mean	Std. Error of mean
Improved access to services	2.7	0.1
Improved physical facilities	2.7	0.1
Expand activities	3.1	0.1
Lower rent	2.8	0.1
Over all interest	2.7	0.1

Those who expressed interest to relocate to the proposed LIE in Gaza were asked to estimate the required area of facilities in the new LIE. The results are shown in the following Table:

Table24: Required size of facility in LIE in m^2 under current conditions

Area m^2	Frequency	Percent	Cumulative Percent	Mean m^2	Std. Error of Mean
0-100	12	9	9	92	6
101-200	58	45	54	179	3
201-300	21	16	70	267	5
301-400	3	2	72	400	0
401-500	20	16	88	500	0
501-600	1	1	89	600	0
>600	14	11	100	1589	192
Total	**129**	**100**		**399**	**44**

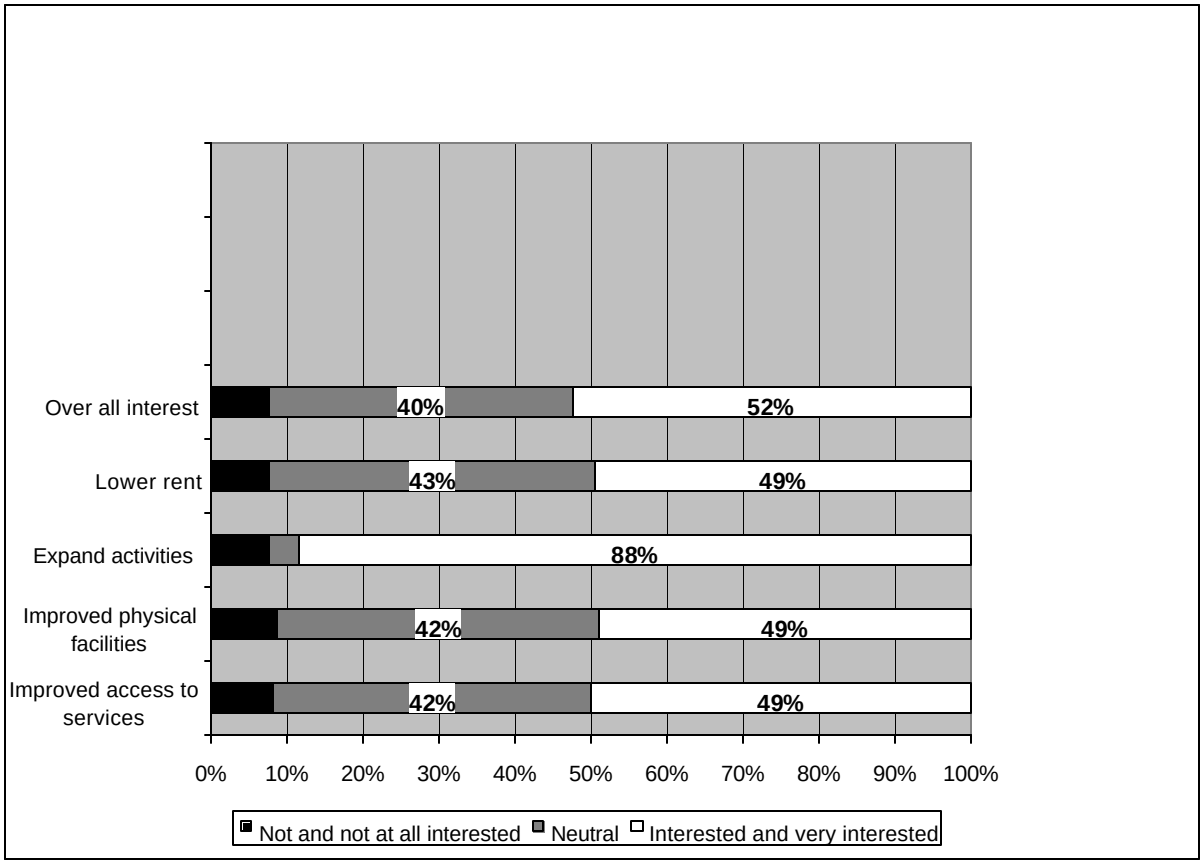
The largest segment of respondents (45 percent) would require an area of 100-200m^2, with a mean of 179 m^2. The second largest groups (16 percent each) of businesses stated that they require at 201-300m^2, with an average of 267m^2 and 401-500m^2. A significant percent age (11 percent) of businesses would require an area above 600m^2, with an average of 1,589 m^2. Five extreme outlier cases were reported asking for 1,250, 1,500, 2,000 and 3,000m^2.

5. Demand for Local Industrial Estate (Normal Situation)

Respondents were also asked about their interest to relocate if the political situation returns back to normal – that is, pre-Intifada conditions. Such a scenario would increase interest in expanded facilities and improved infrastructure. Respondents were asked to rate their interest based on the following scale:

1. Not interested at all
2. Not interested
3. Neither/Nor interested
4. Interested
5. Very interested

Figure3: Interest in relocating to the LIE under normal conditions



Unlike results under the current scenario, responses under the "pre-Intifada" assumption are much more positive. Slightly more than half of respondents are interested or very interested in relocating to the new LIE. Within this category, one third is very interested. Expanding facilties is still the most important driving factor (88 percent). For more details see Table? In Annex?. These results imply that there will be a significant increase in demand for the new LIE once the political situation stabilizes.

As shown in the following table, the degree of interest for the new LIE under normal conditions scenario is above the average ranking of three "3".

Table25: Relocating interest to LIE under normal situation for various factors

Item	Mean	Std. Error of mean
Access to services	3.5	0.1
Physical facilities	3.5	0.1
Expand activities	3.9	0.1
Lower rent	3.6	0.1
Over all interest	**3.5**	**0.1**

The requires sizes under normal situation is indicated in the following table:

Table26: Required size of facility in LIE in m^2 in normal conditions

Area m^2	Frequency	Percent	Cumulative Percent	Mean m^2	Std. Error of Mean
0-100	16	9	9	86	7
101-200	63	36	45	179	3
201-300	25	14	59	270	5
301-400	5	3	62	400	0
401-500	37	21	83	500	0
501-600	2	1	84	600	0
>600	28	16	100	1,934	189
Total	**176**	**100**		**541**	**56**

Most businesses would require a small to medium areas as shown in the above table. The largest segment (36 percent) would require an area of 101-200 m^2 with an average of 179 m^2. The second largest group (21 percent) would require an area of 500 m^2. Furthermore, a significant group of businesses (16 percent) would ask for a medium to large areas with an average of 1,934 m^2. Five extreme cases were reported asking for areas such as 2,000, 2,250, 3,000, 4,000, and 5,000 m^2.

6. Demand and Relations with Other Variables

This section examines the relationship between demand for LIE facilities under current and normalized conditions and other variables such as nature of business, size of facility, operating capacity utilized, ownership, and others.

Over all Interest in Relocating to LIE and Nature of Businesses

a. Current situation

The Pearson Chi-Square test shows significant value (0.05) to reject the independency between overall interest and the sector of business. Therefore, the statistical results show that there is a relationship between the nature of the business and its willingness to relocate to the LIE under current political situation.

Table27: Nature of business and interest to relocate

Over all interest		Nature of business			Total
		Industry and manufacturing	Trade	Service	
Not interested	No.	32	27	7	66
	Percent	29.6	51	19	33
Neutral	No.	34	17	17	68
	Percent	31.5	32	46	34
Interested	No.	42	9	13	64
	Percent	39	17.0	35.1	32
Total	**No.**	**108**	**53**	**37**	**198**
	Percent	**100**	**100**	**100**	**100**

The results suggest that the tendency to relocate under current situation is the highest among industry (39 percent), then services (35 percent) and trade (17 percent).

b. Normal situation

The Pearson Chi-Square test shows no significant value to reject the independency between the nature of the business and willingness to relocate. Therefore, the statistical results show that there is no relationship between the nature of the business and its willingness to relocate to the LIE under a normalized political and economic situation.

Over all Interest in Relocating to LIE and Size of Current Facilities

a. Current situation

The cross tabulation results indicate that there is significant relationship between demand for LIE and current size of business facilities under Intifada conditions. Pearson Chi-Square test shows significant value to reject the independency between the size of current facility and demand to relocate.

Table28: Current size of business and interest to relocate under current conditions

Over all interest		Size of current facility in m2					Total
		0-150	151-300	301-450	451-600	>751	
Not interested	No.	17	15	6	13	15	66
	Percent	15.3	37.5	75	86.7	62.5	33.3
Neutral	No.	53	12			3	68
	Percent	47.7	30.0			12.5	34.3
Interested	No.	41	13	2	2	6	64
	Percent	36.9	32.5t	25	13.3	25.0	32.3
Total	**No.**	**111**	**40**	**8**	**15**	**24**	**198**
	Percent	**100**	**100**	**100**	**100**	**100**	**100**

b. Normal situation

Chi-Square test significant value indicates that there is a relationship between the size of business and interest to relocate to the Lie under normal situation. Chi-Square test significant value equals 0.001 indicating that there is a relationship between the size of business and interest to relocate to the LIE under normal situation.

Table29: Current size of business and interest to relocate under normal conditions

Over all interest		Size of current facility in m^2					Total
		0-150	151-300	301-450	451-600	>751	
Not interested	No.	3	5		2	5	15
	Percent	2.7	12.5		13	20.8	7.6
Neutral	No.	55	17	2	2	3	79
	Percent	49.5	42.5	25	13	12.5	39.9
Interested	No.	53	18	6	11	16	104
	Percent	47.7	45	75	73	66.7	52.5
Total	**No.**	**111**	**40**	**8**	**15**	**24**	**198**
	Percent	**100**	**100**	**100**	**100**	**100**	**100**

On contrary to the previous results, businesses having larger areas tend to have more interest to relocate than smaller ones. Furthermore, larger businesses are more inclined to make a decision to move rather than being neutral as the case with smaller businesses.

Over all Interest in Relocating to LIE and Number of Employees

a. Current situation

The cross tabulation results indicate that there is a significant relationship between demand for LIE and number of employees under Intifada conditions. Pearson Chi-Square test shows significant value to reject the independency between interest to relocate and number of employees in the business.

Table30: Number of employees and interest to relocate under current conditions

Over all interest		Number of employees			Total
		0-4	5-8	>8	
Not interested	No.	32	13	21	66
	Percent	33	22	48	33
Neutral	No.	42	23	3	68
	Percent	44	39	7	34
Interested	No.	22	22	20	64
	Percent	23	38	45.5	32
Total	**No.**	**96**	**58**	**44**	**198**
	Percent	**100**	**100**	**100**	**100**

The results suggest that the higher the number of employees the higher tendency to relocate.

b. Normal situation

Chi-Square test significant value indicates that there is a relationship between the number of employees and interest to relocate to the LIE under normal situation. Chi-Square test significant value equals 0.004 indicating that there is a relationship between the number of employees and interest to relocate to the LIE under normal situation.

Table31: Number of employees and interest to relocate under current conditions

Over all interest		Number of employees			Total
		0-4	5-8	>8	
Not interested	No.	8		7	15
	Percent	8.3		15.9	7.6
00Neutral	No.	43	27	9	79
	Percent	44.8	46.6	20.5	39.9
Interested	No.	45	31	28	104
	Percent	46.9	53.4	63.6	52.5
Total	**No.**	**96**	**58**	**44**	**198**
	Percent	**100**	**100**	**100**	**100**

The results also suggest that the larger the business in terms of number of employees, the higher the interest to move to the LIE.

Over all Interest in Relocating to LIE and Today's and Normal Capacity Utilization

a. Current Situation

The results show that Chi-Square Test significant value (2 sided) equals 0.00, indicating strong relationship between interest to relocate and prior to intifada capacity utilization.

Table32: Current capacity utilization and interest to relocate

Over all interest		Today utilized operating capacity				Total
		0-25	26-50	51-75	76-100	
Not interested	No.	32	34			66
	Percent	64	34			33
Neutral	No.	2	40	16	10	68
	Percent	4	39.5	55	55.5	34
Interested	No.	16	27	13	8	64
	Percent	32t	27	45	44	32
Total	**No.**	**50**	**101**	**29**	**18**	**198**
	Percent	**100**	**100**	**100**	**100**	**100**

Businesses with larger capacity utilization are more interested to relocate to the LIE as shown in the above table. Neutrality also increases with the increase in capacity utilization.

b. Normal Situation

The results show that Chi-Square Test significant value (2 sided) equals 0.00, indicating a strong relationship between interest to relocate and prior to intifada capacity utilization.

Table33: Current capacity utilization and interest to relocate

Over all interest		Today's utilized operating capacity				Total
		0-25	26-50	51-75	76-100	
Not interested	No.	9	6			15
	Percent	18	6			7.5
Neutral	No.	6	46	17	10	79
	Percent	12t	45.5	58.5	55.5	34
Interested	No.	35	49	12	8	104
	Percent	70	48.5	41.5t	44.5	52.5
Total	**No.**	**50**	**101**	**29**	**18**	**198**
	Percent	**100**	**100**	**100**	**100**	**100**

Unlike the previous results, the interest to relocate under normal conditions increases with those currently utilizing lower capacity.

Over all Interest in Relocating to LIE and Title of Premises

a. Current Situation
Chi-Square Tests significant value (2 sided) equals 0.17, meaning that there is no association between title of business and interest to relocate under current conditions.

b. Normal Situation
Chi-Square Tests significant value (2 sided equals 0.05) suggests that there is somewhat a relationship between interest to relocate to the LIE and the title of business. Interestingly, the tendency to move to the LIE is higher when the business facility is owned as appears in the table below.

Table34: Interest to relocate and title of business

Over all interest		Title of Premises		Total
		Rented	Owned	
Not interested	No.	37	29	66
	Percent	39	28	33
Neutral	No.	35	33	68
	Percent	37	32	34
Interested	No.	23	41	64
	Percent	24	34	32
Total	**No.**	**95**	**103**	**198**
	Percent	**100**	**100**	**100**

Over all Interest in Relocating to LIE and Current Rent Rates

a. Current Situation
Pearson Chi-Square test shows significant value (0.00) to reject the independency between rent rates and interest to relocate under current political conditions. The higher the current rent rates of the business, the higher the tendency to relocate.

b. Normal Situation
Chi-Square Test reveals significant value (2 sided) equals 0.01, signaling a relationship between rent rates and interest to relocate to the LIE under normal conditions. The tendency among respondents to relocate to the new LIE is higher when the current rent rates paid is higher vice versa

7. Appropriateness of the Proposed LIE

Field surveyors briefly described the LIE location in Gaza area to respondents. Respondents were then asked to state their opinion on whether is the proposed LIE is appropriate for them or not on the following scale:

1. Not appropriate at all
2. Not appropriate
3. Neutral
4. Appropriate
5. Very appropriate

The following results were obtained:

Table35: Appropriateness of LIE location

Answer	Frequency	Percent	Cumulative Percent
Not appropriate at all	7	3	3
Not appropriate	7	4	7
Neutral	68	34	41
Appropriate	88	45	86
Very appropriate	27	14	100
Total	**197**	**100**	

Forty five percent of respondents indicated that the proposed LIE is appropriate for their activities. Forty-three (14) percent judged the proposed LIE “very appropriate”. Only seven percent rate the proposed LIE as “not appropriate” or “not appropriate at all”. Thirty four percent of businesses were undecided reflecting a significant segment of businesses that are indifferent. In general the results indicate acceptability (mean of 3.6 out of 5) of the new location for the majority of businesses.